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BLUEGRASS CAPITAL: AN ENVIRONMENTAL HISTORY OF CENTRAL KENTUCKY TO 1860

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Dr. Scott Taylor, Director of Graduate Studies

BLUEGRASS CAPITAL:
AN ENVIRONMENTAL HISTORY OF CENTRAL KENTUCKY TO 1860

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Arts and Sciences
at the University of Kentucky

By

Andrew Parker Patrick

Lexington, Kentucky

Director: Dr. Amy Murrell Taylor, Professor of History

Lexington, Kentucky

2017

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ABSTRACT OF THE DISSERTATION

BLUEGRASS CAPITAL: AN ENVIRONMENTAL HISTORY OF CENTRAL KENTUCKY TO 1860

This dissertation traces the long-term evolution of the Inner Bluegrass region of central Kentucky with a focus on the period between the first Euro-American incursions into the area and the Civil War era. Utilizing an agroecological perspective that analyzes cultivated landscapes for their ecological features, it explores the ever-shifting mix of cultural and natural influences that shaped the local environment. Most prominently, it reveals the extent to which intertwined strands of capitalism and slavery mingled with biology to produce the celebrated Bluegrass agricultural system.

It begins with an appraisal of the landscape before white men like Daniel Boone arrived, emphasizing the roles native cultures played in shaping regional ecology and arguing for a more complex periodization of eighteenth century Kentucky. The frontier period from the 1770s through the 1790s witnessed a struggle for control over the region linked to competing ideas about how the local landscape might best be used by humans. That Euro-Americans ultimately emerged victorious in this contest held tremendous ecological consequences as domesticated species, organized according to Euro-American agricultural principles, spread across the region. Introduced plants, such as corn, hemp, and bluegrass, and livestock, including hogs, cattle, sheep and horses, increasingly filled ecological niches previously held by native flora and fauna like cane, elk, and buffalo.

As Kentuckians set about refining their influence over the surrounding natural world during the final decades of the eighteenth century and into the nineteenth, their actions demonstrated the varied ecological, economic, and cultural connections and incentives engendered by their slave-reliant, market-oriented agricultural system. These connections exposed the Bluegrass landscape to national and international currents that enriched some Kentuckians, encouraged the exploitation of others, and facilitated a dramatic simplification of the regional ecology in pursuit of economic gain. Yet, the transformations of the local ecology and the demands of those cultivating it also affected national and international events such as the American Revolution, Louisiana Purchase, and the Civil War. The environmental history of the Bluegrass agricultural landscape demonstrates the complexity of influences on the antebellum world and suggests that complexity continues to affect the regional ecology and culture well into the twenty-first century.

KEYWORDS: Kentucky, Agriculture, Environment, Landscape, Hemp

Andrew P. Patrick
May 31, 2017

BLUEGRASS CAPITAL:
AN ENVIRONMENTAL HISTORY OF CENTRAL KENTUCKY TO 1860

By

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Dr. Amy Murrell Taylor
Director of Dissertation

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May 31, 2017

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Cincinnati, graciously agreed to join to committee early on, when I was proposing an environmental project without including an environmental historian. His advice helped orient me in the field and sharpen my argument. Dr. Kathryn Newfont joined the History Department when the project was in mid-stream, yet nonetheless agreed to come aboard and helped me grapple with material for the later chapters. Dr. David Hamilton challenged me to ground the project more firmly in agricultural history. Geographer Dr. Matt Wilson provided a valuable disciplinary outsider's perspective and helped me think about writing accessible prose. Without these committee members, this would have been a very different project.

My biggest debts to acknowledge, however, are to my friends and family. My friends from Centre College have been a constant support and have always humored my tendency toward long historical asides. My family has really gone above and beyond to support me. My sister, Dr. Dana Connelly, and I shared much of our graduate school journey as we both worked on degrees at UK and lived together. She was always available with useful suggestions, particularly dealing with agricultural statistics, despite how far the topic is from her specialty in welfare policy. Dan and Leslie Patrick, my parents, likely deserve the largest share of the credit for any accomplishments this dissertation represents. They instilled an intellectual curiosity and love of learning in me early in life that drove my entire academic career. Their financial and emotional support underpinned much of the journey. Not only that, they have continued to read early drafts of most things that I write, which extends a trend that started in elementary school.

My wife, Kari Walker Patrick, contributed far more than I can explain here. Her

unflagging patience, eye for grammatical detail, and allergy to fuzzy analysis all helped the project tremendously. More important, she's kept me sane during the marathon of graduate school and made sure I kept things in perspective. A full account of how she's helped me in the decade I've known her would add at least a chapter to the dissertation.

Reflecting on these lengthy acknowledgements, it's apparent to me how lucky I was in my graduate school journey. My "thank you" seems insignificant in comparison to the help I received, but I'm confident my colleagues, friends, and family will accept it nonetheless.

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Chapter One: Introduction

By the mid-nineteenth century, the Bluegrass region of Kentucky was celebrated as an example of "American agriculture in one of its most refined and successful phases."[1] Observers frequently commented on the remarkable transformation by which "a howling wilderness" became the "remarkably fertile and well cultivated" landscape of central Kentucky, "capable of maintaining a nearly half a million" within a single generation.[2] Contemporaries credited the rich commercial agricultural system to the ingenuity and hard work of white Kentuckians, yet the history behind the antebellum environment defied such simplistic explanations. This study explores the tangled roots and broad significance of the Bluegrass landscape before the Civil War, tracing the dual influences of culture and ecology.

The dissertation uncovers and analyzes these myriad forces, situating them within a long history of human occupation of the landscape. It traces the ways people have interacted with the central Kentucky environment from 1000 C.E. through 1860, highlighting the changing cultural demands placed on the local ecology. These demands both responded to and helped shape the landscape; how groups used the environment was influenced by both their cultural backgrounds and the physical characteristics of their

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[1] "Braedalbane Farm—A Bourbon Farm—Conclusion" *The Country Gentleman: A Journal for the Farm, the Garden, and the Fireside* Vol. VIII (Albany, N.Y., 1856), 122.

[2] John Melish, *Travels through the United States of America, in the Years 1806 & 1807, and 1809, 1810, & 1811; including an account of the passages betwixt America & Britain, and Travels through various parts of Britain, Ireland, and Canada, with corrections and improvements till 1815* (London: George Cowie and Co., 1818), 404; William Darby, *The Emigrant's Guide to the Western and Southwestern States and Territories* (New York: Kirk and Mercian, 1818), 203.

surroundings, and their use often held profound implications for the landscape. By focusing on the relationship between cultural and ecological factors in the transformations of the Bluegrass landscape, this study crafts a narrative of environmental change that encompasses such seemingly divergent topics as Native American seasonal mobility during the sixteenth century, and enslaved labor on steamboats during the nineteenth.

While all residents influenced the landscape, over the more than eighty years that chattel slavery existed in the region, the institution served as one of the major mechanisms by which whites enacted their cultural vision for the local ecology. Enslaved Kentuckians played vital roles in shaping the Bluegrass environment to capitalist ends, both through their labor and as commercial commodities whose value balanced the ledgers of innumerable financial transactions during the period. During the antebellum years, whites marveled at the landscape changes, remarking that it seemed "the magic influence of gold…had converted the face of the land from a desert to a paradise."[3] Yet this simple formulation overlooked the relationship between the "gold" and the black people who performed much of the physical labor to shape the local ecology along the profitable agricultural lines envisioned by whites. In reality, capitalism, slavery, and environmental change in the Bluegrass advanced in lock-step, with each influencing the others. Generations of enslaved men, women, and children labored in the central Kentucky landscape, harnessing the natural fertility of the region for the enrichment of

[3] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 67.

their white enslavers. The capitalist, slave-based agricultural system that took root acquired distinctive characteristics linked to the local ecological context, but held national and even international significance. The intertwined relationships between profit-seeking white men, enslaved black people, and the agricultural landscape of what became known as the Bluegrass region demonstrate the complexity of forces shaping the environmental history of a pivotal juncture of American geography during the late eighteenth and nineteenth centuries.

The study develops a synthetic account that keeps the landscape and its relationship to those who inhabited it at the center of the analysis using an agroecological perspective. Put simply, this means appraising the agricultural landscape as an ecological system and thinking about crops, livestock and humans as all parts of the natural world. It also means taking agriculturalists seriously as agents of environmental change and acknowledging the natural constraints imposed by and opportunities available in the local ecology. In an influential roundtable that helped establish this perspective in American environmental history, Donald Worster linked his agroecological framework to Aldo Leopold's mid-twentieth century call for an "'ecological interpretation of history.'" Worster even discussed Leopold's choice of "the frontier lands of Kentucky" as an example of how such an approach could yield important insights into the roles ecology played in human history, years before the field "environmental history" existed as an academic discipline.[4] Leopold concluded that "plant succession steered the course of

[4] Donald Worster, "Transformations of the Earth: Toward an Agroecological Perspective," *Journal of American History,* 76 no. 4 (March 1990), 1087-1088.

history" when livestock-nourishing bluegrass came to dominate stretches of the landscape amid the ecological disturbances created by the first white American settlers and posed a counterfactual to make his point:

> What if the plant succession inherent in this dark and bloody ground had, under the impact of these forces, given us some worthless sedge, shrub, or weed? Would Boone and Kenton have held out? Would there have been any overflow into Ohio, Indiana, Illinois, and Missouri? Any Louisiana Purchase? Any transcontinental union of new states? Any Civil War?[5]

Worster applauded Leopold's intent to recognize the large implications of environmental factors in history, but noted that "the facts in the case are more complicated" and transcended the "simple form of environmental determinism" that Leopold suggested. Worster corrected that "Kentucky bluegrass was not a native species, but a European import" and therefore an example of "'ecological imperialism.'"[6] Seemingly without irony, Worster then put the topic Kentucky example aside in his essay describing the promise of the agroecosystem perspective to provide more complicated and accurate histories of "the linkages human beings make to nature."[7] In the subsequent years, no detailed study has applied the perspective to the central Kentucky environment.

Used as a lens to interpret the history of other American landscapes, however, the agroecosystem framework has yielded illuminating studies of rural environments from the coasts of Georgia to the Salt River Valley in Idaho and demonstrated the utility of incorporating factors like slave labor regimes and cooperative irrigation into

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[5] Aldo Leopold, *A Sand County Almanac: With Essays on Conservation from Round River* (New York: Oxford University Press, 1966), 241.
[6] Worster, 1088.
[7] Ibid., 1088, 1092. Worster spent three brief sentences explaining the "complicated" facts.

environmental histories of agricultural systems.[8] Applying the agroecosystem perspective to central Kentucky history reveals a longer and more complicated story than either Leopold or Worster imagined. Amid the complexities and kaleidoscopic range of influences that contributed to ecological change during the study period, slavery and capitalism emerged, in particular, as the elements of human culture that held the greatest significance for the landscape, and thus figure prominently in the agroecological perspective as applied to the antebellum Bluegrass.[9]

Defining the "Bluegrass" region as a focus of study poses a bit of a riddle; modern residents tend to have idiosyncratic definitions, though many touch on horse farms, tobacco barns, bourbon, and the celebrated species of grass. In the end, this study settles on a combination of the cultural and environmental in defining the region, aligning the historic political boundaries with the geologic conception of the modern "Inner Bluegrass" as defined in geologic terms.[10] The geologic designation stems from the physical characteristics of the limestone subsoil, and the resulting chemical composition

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[8] Mart A. Stewart, *What Nature Suffers to Groe: Life, Labor, and Landscape on the Georgia Coast, 1680-1920* (Athens, GA: University of Georgia Press, 1996); Mark Fiege, *Irrigated Eden: The Making of an Agricultural Landscape in the American West.* (Seattle: University of Washington Press, 1999); see the historiography section that follows for more details and examples.

[9] Insofar as the two are distinct categories, as the history of the region tended to blur the lines between the two. See the historiography section that follows for a detailed discussion of how this study intersects with recent work on the historical connections between slavery and capitalism.

[10] See A.J. Woods, J.M. Omernik, W.H. Martin, G.J. Pond, W.M. Andrews, S.M. Call, J.A. Comstock, and D.D. Taylor, *Ecoregions of Kentucky: color poster with map, descriptive text, summary tables, and photographs* (Reston, VA., 2002) available online at <ftp://newftp.epa.gov/EPADataCommons/ORD/Ecoregions/ky/ky_eco_lg.pdf >(Accessed February 4, 2017).

of the soil. The political boundaries encompass a six-county region, including Bourbon, Clark, Fayette, Jessamine, Scott and Woodford counties, an ecologically imperfect, but methodologically necessary, distinction to derive statistical data on which to base analysis of the physical changes to the Inner Bluegrass landscape. However, the dissertation also occasionally draws examples from other nearby locations, either from within the Inner Bluegrass but outside of the six counties, such as Frankfort and Danville, or from the adjacent ecoregions with economic and cultural connections to the study area.[11] Since this encompasses the modern Lexington-Fayette Urban-County government and the contiguous counties, it also meets the eighteenth and nineteenth-century definitions of the most fertile section of the state as the area "round Lexington which is all of the very first quality" and "for many miles…around Lexington."[12] Yet, factors from far beyond the immediate vicinity influenced the development of the central Kentucky environment, and *Bluegrass Capital* traces these connections back to their sources to illustrate the ways in which the local ecology was deeply embedded in far-flung economic and cultural networks.

[11] Significant portions of Franklin, Anderson, Mercer, Boyle, and Garrard Counties also fall within the Inner Bluegrass ecoregion, along with a sliver of Madison County on the Kentucky River.

[12] Lewis Condict, "Journal of a Trip to Kentucky in 1795" *Proceedings of the New Jersey Historical Society* n. s., Vol. IV, (1919), 120; Josiah Espy, *Memorandums of a Tour Made by Josiah Espy in the States of Ohio and Kentucky and Indiana Territory in 1805* (Cincinnati: R. Clarke, 1870), 8.

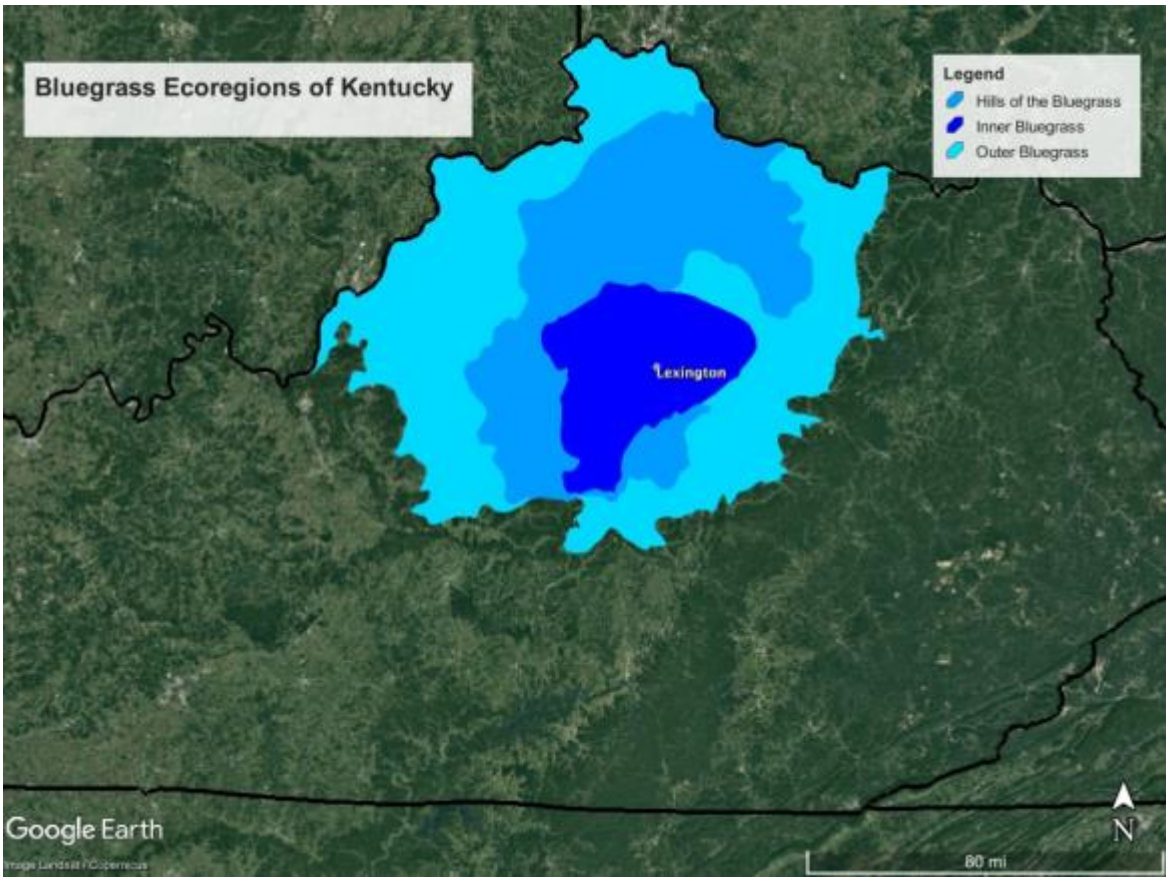

Figure 1.1 shows the three “Bluegrass” ecoregions within the state.

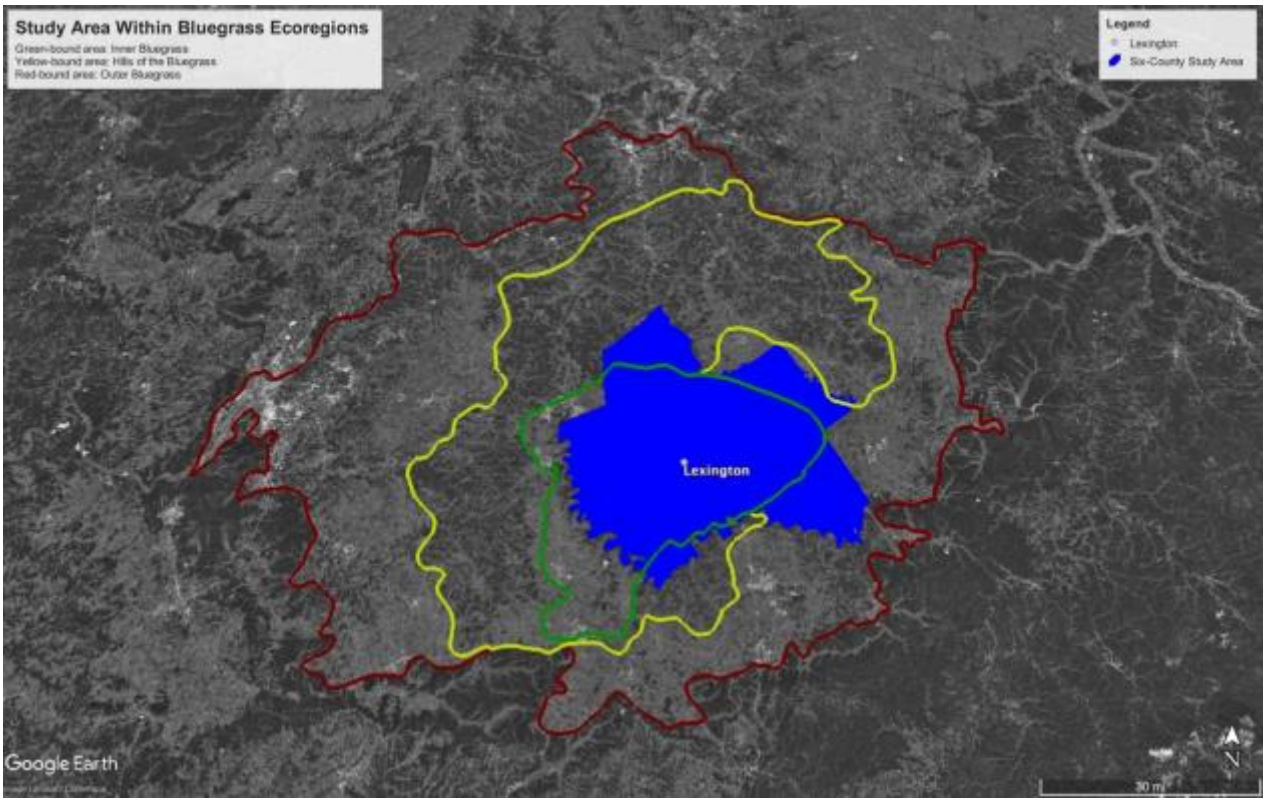

Figure 1.2 shows the six-county study area within the Bluegrass ecoregions of Kentucky.

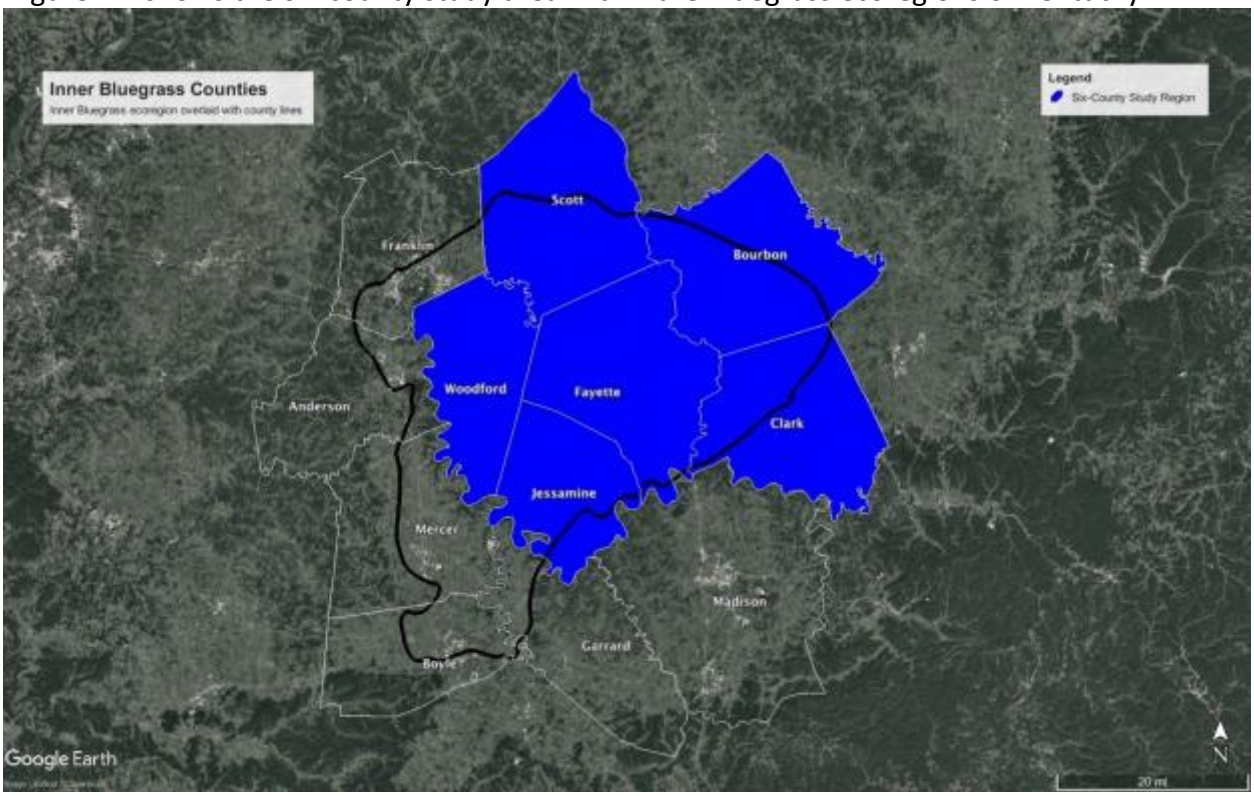

Figure 1.3 shows Inner Bluegrass ecoregion and counties.

Historiography

Recreating the rich tapestry of the Bluegrass landscape before emancipation weaves together three distinct historiographical threads: the history of central Kentucky, American environmental history, and the historical relationship between slavery and capitalism. Each thread contributes to the overall historiographical value of the project and demonstrates the benefits of bringing diverse literatures into conversation through the lens of a single location. The study confirms many of the broad contours of American environmental historiography, while providing a more refined account of ecological change in one of the pivotal and understudied landscapes in eighteenth and nineteenth century history. By linking the environmental history of the central Kentucky landscape to the westward spread of Euro-American exploration and settlement, the dissertation uncovers a new section of the intricate tapestry of scholarship that describes the long-term ecological transformations of the North American continent.

Fundamentally, this environmental history of the Inner Bluegrass agricultural landscape under slavery addresses several gaps and corrects lingering misconceptions in regional historiographies. *Bluegrass Capital* is the first explicitly environmental interpretation of the Bluegrass agricultural landscape. It provides a corrective to a long-running tendency to overstate the role of human agency and artificially divide central Kentuckians from the environment they inhabited. From the eighteenth century through the twenty-first most accounts of central Kentucky history have emphasized the human actors, and particularly the white Euro-American men, who influenced the landscape, celebrating their ability to construct a productive agricultural system that bent the natural

world to their design.[13] This reflects a longstanding tendency to underappreciate the role of ecology in the history of the Inner Bluegrass.[14] Sustained analysis of the long-term evolution of the agricultural system from an environmental perspective pierces the nostalgic haze that characterizes many descriptions of the Bluegrass landscape. In their place, the study reveals the complex relationships, both between nature and culture and between different people with conflicting visions for the land, that actually drove the process of ecological transformation in the region.

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[13] John Filson, *Discovery, Settlement, and Present State of Kentucke* (New York: Samuel Campbell, 1784); Lewis Collins, *Historical Sketches of Kentucky: Embracing Its History, Antiquities, and Natural Curiosities, Geographical, Statistical, and Geological Descriptions* (Cincinnati: Collins and James, 1848); Thomas D. Clark, *A History of Kentucky* (New York: Prentice-Hall, 1937) particularly chapters two through five*;* Lowell H. Harrison and James C. Klotter, *A New History of Kentucky* (Lexington: University Press of Kentucky, 1997), particularly chapters one through five; Ted Franklin Belue, *The Hunters of Kentucky: A Narrative History of America's First West, 1750-1792* (Mechanicsburg, PA: Stackpole Books, 2003); James C. Klotter and Freda C. Klotter, "Starting A State" in *A Concise History of Kentucky* (Lexington: University Press of Kentucky, 2008); Ellen Eslinger, "Farming on the Kentucky Frontier" *Register of the Kentucky Historical Society*, vol. 107 no. 1, 2009, 3-32.

[14] Thomas D. Clark's largely static view of the landscape stemmed in part from the breadth of Clark's topics, but more fundamentally from his perspective of the land as a constant background variable to human affairs. He recognized and celebrated Kentuckians' connection to their land but failed to account for how dynamic this relationship was and the variety of factors that shaped the agroecosystem. See Clark, *A History of Kentucky* (New York: Prentice-Hall, 1937) and *Agrarian Kentucky* (Lexington: University of Kentucky Press, 1977). James F. Hopkins did more to address the multiple influences on the agricultural system, but his focus on a single crop limits the study's usefulness in describing the system as a whole. See *A History of the Hemp Industry in Kentucky* (Lexington, KY: University of Kentucky Press, 1951). Dissertations on Inner Bluegrass agriculture are largely descriptive and do little to explore the causes behind the agriculture they described. See Richard Troutman, *The Social and Economic Structure of Kentucky Agriculture, 1850-1860.* (Dissertation at the University of Kentucky, 1958) and Elizabeth R. Clotfelter, *The Agricultural History of Bourbon County, Kentucky Prior to 1900.* (Thesis at the University of Kentucky, 1953). Local histories often fall into the same category. See H.E. Everman, *Bourbon County Since 1865* (Richmond, Ky.: H.E. Everman, 1999).

A few recent historians of Kentucky have begun incorporating the major findings of environmental history in their accounts, yet their focus often remains on other topics, relegating the human-nature dynamic to the margins. In some sections, the closest to a sustained environmental interpretation of the region is Stephen Aron's *How the West Was Lost: The Transformation of Kentucky from Daniel Boone to Henry Clay,* but it focuses most incisively on cultural change.[15] Aron's narrative traces the transition from the purported "best poor man's country" to an agricultural system designed and maintained to benefit elite Bluegrass whites.[16] Aron explored the changes in what became Kentucky from a short outline of pre-European native land utilization patterns to a detailed discussion of the brief existence of a fluid frontier world. He argued that during the 1760s and 1770s, many white and Indian hunters pursued similar goals using similar methods while displaying some aspects of a "middle ground" that allowed for cross-cultural exchanges. Yet Aron also traced the ways in which subsequent conflicts over resources, first game then land, destroyed the world Daniel Boone first encountered and paved the way for Henry Clay's Bluegrass System.[17] Aron moved beyond simply tracing the triumph of European American conceptions of landuse over those of Native Americans to examine the competing visions of the settlers themselves, particularly over issues related to access

[15] Stephen Aron, *How the West Was Lost: The Transformation of Kentucky from Daniel Boone to Henry Clay* (Baltimore: Johns Hopkins University Press, 1996).
[16] Aron, 83.
[17] The "middle ground" concept was developed by Richard White to describe the mutually beneficial world created at the intersections of native and European or American cultures in the Great Lakes Region during the colonial and early national period. See Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815* Twentieth anniversary edition (New York: Cambridge University Press, 2011).

to the land and whether or not slave labor was desirable or necessary. This narrative necessarily encompassed the environmental changes that occurred from the 1770s to the 1820s, yet those changes remained secondary in Aron's account of how a particular Euro-American cultural system came to characterize the landscape within this circumscribed era.

Craig Thompson Friend's *Kentucke's Frontiers* incorporates environmental factors in his narrative on the transition from frontier "Kentucke" to antebellum "Kentucky."[18] Like Aron, Friend applied some of the insights of environmental history to his account as when stressing the fact that "the notion that this was a 'virgin land' was truly inaccurate" since centuries of "Native American environmental engineering" had produced the landscape that so impressed hunters like Daniel Boone.[19] He also stressed the extent to which "[l]and, slavery, and the market became symbiotic on Kentucke's frontiers" as the "foundations" of "white southern patriarchy."[20] These insights echo some of the major findings from applying the agroecological perspective to the region, yet Friend's account lacks the sustained focus on environmental questions to fully explain the complex dynamics between people and ecology that drove the system.[21]

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[18] Craig Thompson Friend, *Kentucke's Frontiers* (Bloomington: Indiana University Press, 2010).
[19] Ibid., 41.
[20] Ibid., xxii.
[21] Friend's earlier article "'Fond Illusions' and Environmental Transformation Along the Maysville-Lexington Road" is an exception to the rule that scholars have not engaged in explicitly environmental analysis of regional history. The essay explored the "dramatic changes" to ecosystems caused by the "thousands" of settlers who "traveled the road from Maysville to Lexington in search of lands and a new life" and used the travelers' observations of the landscape as the lens to bring the environmental transformations into light. The resulting narrative made a compelling case for how dynamic the

This study breaks new ground in the historiography on central Kentucky by applying the agroecological framework and answering new questions about the evolving landscape. By centering the narrative on the relationship between the people and their environment, a different perspective on the Inner Bluegrass during the eighteenth and nineteenth century emerges, one that foregrounds people's work in the physical world and helps to provide a more well-rounded understanding of regional history. The perspective encourages an appreciation of the importance of actors and factors that receive little attention in traditional historical accounts of the central Kentucky, from enslaved people to climate, soil composition and the reproductive strategies of domesticated species. Placing greater emphasis on these topics necessarily deemphasizes the contributions made by the elite whites who are more familiar topics in history books, while also more accurately describing the world in which they operated and the people with whom they worked to shape the landscape. It also highlights the commercial and capitalist roots of Bluegrass agriculture and the ways in which market-based incentive structures influenced local ecological change. The study casts familiar topics in state history such as constitutional conventions, the War of 1812, and Henry Clay's American System in a new light. Finally, its emphasis on the centrality of slavery to the agroecosystem helps explain the antebellum context that gave rise to the conflicted responses of regional whites to sectional conflicts.

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landscape proved to be along this important transportation route during the late eighteenth and early nineteenth centuries. However, the limited scope of the article necessitates a snapshot approach rather than a holistic view. Friend, "'Fond Illusions' and Environmental Transformation Along the Maysville-Lexington Road" *The Register of the Kentucky Historical Society* Vol. 94 No. 1 (1996), 4-32.

While *Bluegrass Capital* is a new perspective in Kentucky historiography, its focus on this pivotal, and curiously overlooked Bluegrass landscape, rather than methodological approach, distinguishes it within the traditions of environmental history. In many respects, the changes in the Bluegrass landscape during the eighteenth century reflect familiar narratives in American environmental history related to the decline of Native land use regimes and the implementation of new Euro-American cultural paradigms to shape local ecological relationships.[22] The early years of the Euro-American agricultural system in central Kentucky unfolded against a backdrop of contagion, commodification, biological simplification and labor exploitation identified in environmental histories of regions across the world.[23] Reflecting these common patterns, the central Kentucky environment underwent a series of transformations linked to the spread of disease, the imposition of European conceptions of property rights and landownership, the decline or collapse of native flora, fauna, and overall biodiversity, and a reliance on forced labor and native dispossession.

However, the fact that Euro-Americans, those they enslaved, and the species that accompanied them, arrived in central Kentucky amid the imperial upheavals of the late

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[22] William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* 20th Anniversary Revised Edition (New York: Hill and Wang, 2003); Timothy Silver, *A New Face on the Countryside: Indians, Colonists, and Slaves in South Atlantic Forests, 1500-1800* (Cambridge: Cambridge University Press, 1990); Virginia DeJohn Anderson, *Creatures of Empire: How Domestic Animals Transformed Early America* (Oxford: Oxford University Press, 2004).

[23] Alfred W. Crosby Jr., *The Columbian Exchange: Biological and Cultural Consequences of 1492* 30th Anniversary Edition. (Westport, CT: Praeger, 2003); Alfred W. Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (New York: Cambridge University Press, 1986); William Cronon, *Nature's Metropolis: Chicago and the Great American West* (New York: W. W. Norton, 1991).

eighteenth century complicated the seemingly familiar story of biological expansion as the nascent American nation asserted attempted to assert its hegemony over the region, but struggled against resistant Native Americans, and felt threatened or hemmed in by European empires like the British or the Spanish. The timing of white settlement of central Kentucky made it a battleground on which competing visions for the future of the trans-Appalachian west played out and their outcomes established precedents that helped shape the entire North American continent during the nineteenth century. The history of the region reveals the extent to which local environmental factors combined with cultural imperatives to influence political events with international ramifications. The Louisiana Purchase provides a telling example. The fact that introduced species like Bluegrass, hogs, and hemp thrived in central Kentucky contributed to white farmers' demand for secure market access at the port in New Orleans, which influenced, in turn, the Jefferson's administrations' ardor for the Louisiana territory and the expansion of the young nation. Yet, these same local environmental factors also held practical implications for the landscape for generations. *Bluegrass Capital* balances these types of national and international events against a granular perspective on the local landscape, yielding a richer understanding of the connections between the two and demonstrating the importance of Kentucky's environmental history to the early republic.

Continuing into the nineteenth century, the study's combination of a tight regional focus over a lengthy period of time, yet within a broad national and international context, draws inspiration from the rich tradition of American environmental history. One of the major accomplishments of the field has been to emphasize the wide significance and

distant causes of localized landscape change. The contextualized case-study approach that characterizes many environmental histories of agricultural systems allows for the specificity necessary to describe complex local ecosystems as they evolved over the long term, without artificially cordoning them off from wider developments. Moving between the human scale and the broader social and natural structurers also helps avoid slipping into environmental determinism by clearly locating people as actors within their specific ecological and cultural circumstances. Studies in this historiographical tradition explore change in landscapes ranging from a single plantation to small townships and from a few counties to multi-state regions, yet they all ground their analysis in the specific environmental context and the ways in which local human populations interacted with the landscape.[24] Each history, rooted in the long-term influences that transformed specific ecosystems, provides a view of a different facet of the dizzyingly intricate

[24] Like previous environmental histories of regional American agricultural systems, this study explores a specific location over lengthy period to trace the evolving intersections of nature and culture. See for example, Stewart, *What Nature Suffers to Groe;* Fiege, *Irrigated Eden*; Brian Donahue, *The Great Meadow: Farmers and the Land in Colonial Concord* (New Haven: Yale University Press, 2004); S. Max Edelson, *Plantation Enterprise in Colonial South Carolina* (Cambridge, Harvard University Press, 2006); Lynn A. Nelson, *Pharsalia: An Environmental Biography of a Southern Plantation, 1780-1880* (Athens: University of Georgia Press, 2007); Leon Neel, Paul Sutter, and Albert G. Way, *The Art of Managing Longleaf: A Personal History of the Stoddard-Neel Approach* (Athens: University of Georgia Press, 2010); Drew A. Swanson, *Remaking Wormsloe Plantation: The Environmental History of a Lowcountry Landscape* (Athens, GA: University of Georgia Press, 2012). By complicating familiar environmental narratives, this study complements essay collections whose diverse case-studies implicitly make the case for the significance of local ecological specifics to broader developments. See Paul S. Sutter and Christopher J. Manganiello, *Environmental History and the American South: A Reader* (Athens: University of Georgia Press, 2009); Mark Fiege, *The Republic of Nature: An Environmental History of the United States* (Seattle: University of Washington Press, 2012).

kaleidoscope of North American landscapes and reveals the human relationships with their environments that powered the changes. This study builds on this tradition of regional environmental history and the connections between Bluegrass residents and their landscapes demonstrate local iterations of the most powerful forces that reshaped the face of the continent during the eighteenth and nineteenth centuries.

The dissertation also intersects with more specialized branches of environmental history, including studies of antebellum agricultural reform movements. Recent work often focuses on the agrarian modernizers of the east coast who believed regional agriculture was in decline and was the cause of outmigration that undermined the strength of the state. Scholars have demonstrated the ways in which these reformers responded to these challenges via modern and scientific farming practices.[25] Asking similar questions about the Bluegrass reveals that many central Kentucky farmers undermined the distinctions between improved eastern practices and wasteful western approaches that coastal reformers imagined and subsequent historians have echoed by the implications of the geographic focus of their studies. Far from backward-looking traditionalists, many Bluegrass agriculturalists, particularly among the ranks of the white enslavers, embraced and promoted "improved" techniques and technologies aimed to maximize productivity and maintaining landscape fertility. The study demonstrates that like their eastern counterparts, Bluegrass reformers judged their less affluent neighbors

[25] Major studies of agricultural reform tend to focus primarily on eastern states during this period. See Steven Stoll, *Larding the Lean Earth: Soil and Society in Nineteenth-Century America*. (New York: Hill and Wang, 2002); Benjamin R. Cohen, *Notes from the Ground: Science, Soil, and Society in the American Countryside*. (New Haven: Yale University Press, 2009).

as degrading local agricultural landscapes and lamented the westward migration of Kentuckians after "exhausting" their lands. Yet the local environment colored the mechanisms of intensification they applied in sectors from specialized livestock breeding operations to hemp cultivation and manufacturing.

The dissertation takes up themes seen in recent studies of agricultural commodities. Like histories of southern crops such as cotton, tobacco, and rice, this study traces the connections between the evolution of Bluegrass agriculture and changes in economic, social, and ecological relationships.[26] Yet unlike these works, the dissertation focuses on the entirety of the agricultural landscape rather than frame the narrative through the lens of a single staple crop. The diversity of the agricultural system of central Kentucky necessitates the broader thematic focus; a study through the lens of the hemp industry, for example, would reveal a great deal about the linkages between fields and manufactories, the Bluegrass and the Cotton South, and agro-industrial slavery, but very little about the livestock grazing system, surplus wheat production, or bourbon distilling that helped shape the broader agricultural landscape in which hemp played only a part. A coherent understanding of the diverse historic environments created by central

[26] Sven Beckert and Barbara Hahn, *Plantation Kingdom: The American South and Its Global Commodities* (Baltimore: Johns Hopkins University Press, 2016); Sven Beckert, *Empire of Cotton: A Global History* (New York: Alfred A. Knopf, 2014); Drew A. Swanson, *A Golden Weed: Tobacco and Environment in the Piedmont South* (New Haven: Yale University Press, 2014); Judith Carney, *Black Rice: The African Origins of Rice Cultivation in the Americas* (Cambridge: Harvard University Press, 2001).

Kentucky agriculture before emancipation requires an expansive cast of biological characters, resisting the temptation to cast one in a misleadingly influential role.[27]

On the whole, the dissertation advances environmental historiography by demonstrating the depth of the connections between natural and cultural forces that shaped the region and emphasizing how the Bluegrass agricultural landscape played key parts in the survival, expansion, and direction of both the American republic and American slavery for the century before the Civil War. It reveals a more nuanced and interesting ecological history, with far wider significance, than the broad-strokes versions given by Leopold, Worster, or in overviews of southern environmental history.[28] In several key moments, if widely-held, white, male regional agroecological imperatives had operated strongly against either membership in the United States or the continued enslavement of their black neighbors, for example, the ripple effect might have changed the course of continental history.[29] As a region at times both "west" and "south" in United States history, the environmental history of central Kentucky complicates the historiography of each. It emphasizes the significance of agriculture to ecological change

[27] Drawing this distinction should not suggest that these scholars overstated the centrality of their crops of choice, but to highlight the challenges of environmental history for diversified agricultural systems. One tradeoff for the broader thematic focus in this study was a shortened temporal frame, one that leaves off the dramatic changes set into motion by emancipation.

[28] For example, Donald E. Davis folded some mentions of the Bluegrass into his chapter on "Upland: Growing Pains" about the non-plantation districts of the trans-Appalachian states. Donald E. Davis, *Southern United States: An Environmental History* (Santa Barbara: ABC-CLIO, Inc., 2006), 133-157.

[29] Key moments, discussed in detail in the dissertation, include the 1790s, at early state constitutional conventions in 1792 and 1799, and during the secession crisis of the 1860s.

and the role of environmental context in shaping the features of local agrarian practices, including both the particular crop mix and livestock species that came to dominate the landscape and the blend of free and enslaved labor that cultivated it. The study highlights the many tendrils of the agroecosystem that penetrated virtually every aspect of central Kentuckians' lives and how their lives influenced the composition of that agroecosystem. Some of the characteristic features of the Bluegrass agricultural landscape as it evolved during these years, such as the grazing system that focused on particularly valuable breeds of livestock and the continent's largest hemp crops, succeeded to such a celebrated degree and left such a lasting impression on the regional ecology, economy and culture because of their successful, and largely sustainable, adaptations and simplifications of native ecological processes, but also linked the region most strongly to capitalist markets and relied most heavily on the expropriation of enslaved labor. In analyzing these dynamics at a lynchpin of North American geography, the dissertation crafts a new chapter in American environmental history.

In a similar way, *Bluegrass Capital* carves out new space in scholarship on slavery as an economic institution. Recent well-received studies have made great strides in illuminating the deep connections between American capitalism and a dynamic, modern American slavery.[30] Their research collectively constitutes a reappraisal of slavery as an

[30] Joshua D. Rothman, *Flush Times and Fever Dreams: A Story of Capitalism and Slavery in the Age of Jackson* (Athens: University of Georgia Press, 2012); Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge, MA: Harvard University Press, 2013); Edward Baptist, *The Half Has Never Been Told: Slavery and the Making of American Capitalism* (New York: Basic Books, 2014); Beckert, *Empire of Cotton*; Calvin Schermerhorn, *The Business of Slavery and the Rise of American Capitalism, 1815-1860* (New Haven: Yale University Press, 2015); Matt Karp, *This Vast*

economic and political institution, revealing not only its compatibility with expansive antebellum capitalism, but their interdependence. These historians have traced the economic chains that linked enslavers who drove black men and women to carve cotton plantations on the southwestern frontiers to the New Orleans markets, New England manufactories and Old World financial institutions. They have also demonstrated the ways in which entrepreneurial whites transformed black bodies into financial instruments, reducing human lives to capital. They have described the ways in which plantations served to reorganize nature, along with reorganizing labor, in a pursuit of profits buffeted by international economic currents.[31] This work dramatically illustrates the essential roles played by slavery in the rise American capitalism. Yet, most of these studies focus on the cotton South or on plantation regions, and on their links to the emergent factories and capital institutions of the North and Europe, relegating many

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Southern Empire: Slaveholders at the Helm of American Foreign Policy (Cambridge, MA: Harvard University Press, 2016); Sven Beckert and Seth Rockman, eds., *Slavery's Capitalism: A New History of American Economic Development* (Philadelphia: University of Pennsylvania Press, 2016).

[31] While acknowledging the "foundational distinction between slave labor and 'free' labor," these scholars define "capitalism" by the type and importance of market exchange to the economic system, rather than by the mode of production, as earlier historians often defined the term. They also tend to reject the idea that shared conceptions of "paternalism" mediated the relationship between the enslaved and the enslavers, labeling the argument "a patent fraud, a counterfeit worn threadbare by repeated gullible acceptances." Johnson, *River of Dark Dreams*, 253-254, 194. My research largely aligns with these compelling responses to an earlier generation of scholarship, particularly the influential work of Eugene Genovese. The history of the Bluegrass agricultural landscape provides little evidence for the "fragile bridge" of "paternalism accepted by both masters and slaves" that Genovese described, but overflows with examples of the profit-seeking market activity for the enslaving whites. Eugene D. Genovese, *Roll, Jordan, Roll: The World the Slaves Made* (New York: Random House, 1976), 5.

enslaved Americans and the landscapes they cultivated to the sidelines. They therefore inadequately capture the diversity of the institution as it developed in relation to the diverse American environments in which it took root.[32] This limitation is part of why it remains "more easily asserted than substantiated" that by "virtue of our nation's history, American slavery is necessarily imprinted on the DNA of American capitalism."[33]

By examining the central Kentucky agricultural landscape, *Bluegrass Capital* provides a detailed account of a divergent lineage of this hereditary connection linking capitalism and slavery in the United States. It enhances our understanding of how slavery shaped the rise of American capitalism by uncovering a unique iteration of the connections as the unfolded in a distinct ecological context. It reveals a distinct agricultural regime characterized by slavery, diversity, and flexibility. The high numbers of enslaved Kentuckians in the study area, which approached half the population in some counties during the antebellum years, distinguished the Inner Bluegrass from other sections of the state while creating similarities with slave systems further south. Yet the ecological and cultural context still differed significantly from cotton South. In their pursuit of profits, Bluegrass enslavers developed an iteration of human bondage predicated on flexibility, diversity, and a close association with capital-intensive ventures in manufacturing, commerce, and transportation. Property in people represented a large portion of the capital investments held by Bluegrass enslavers and they developed

[32] Works including Stewart, *What Nature Suffers*, Edelson *Plantation Enterprise,* and Nelson, *Pharsalia* all demonstrate overarching similarities in how slavery powered landscape modifications, but also the peculiarities of the local system.
[33] Beckert and Rockman, eds., *Slavery's Capitalism,* 3.

innovative ways to realize a return on their holdings, from a diversified mix of crops and high-value livestock and the wide spread system of slave rentals and hiring to applying slave labor to proto-industrial ventures like hemp processing and manufacturing geared toward national and international markets. Bluegrass slavery proved an important mechanism by which white Kentuckians reshaped the regional environment to capitalist ends, creating an agricultural landscape that confounds stereotypical images of the ecology of antebellum slavery. While the idea that "the plantation and the factory composed a coherent national economy" might be uncontroversial in academic circles today, as it was to people across the political spectrum 160 years ago, Kentucky's importance as a lynchpin to that economy remains underappreciated in the twenty-first century.[34] The dissertation begins to correct the oversight.

Within this broader literature, only one scholar has focused on the Bluegrass region. John Majewski has written on what he calls the "Limestone South" in which he included central Kentucky. In Majewski's framework, the "Limestone South" also refers to the Nashville Basin of Tennessee and the Shenandoah Valley of Virginia, both of which share environmental characteristics associated with their calcium-rich subsoils that distinguish all three from the rest of the South. In each region, whites erected broadly similar agricultural systems that relied on flexible iterations of American slavery to facilitate continuous cultivation, large-scale livestock breeding and the expansion of commerce and manufacturing. Yet, despite the ways in which "the Limestone South confirms the current literature's emphasis on the flexible, modern nature of antebellum

[34] Beckert and Rockman, eds., *Slavery's Capitalism,* 3.

slavery," revealing that "in the right environmental conditions, [it] could indeed support a thriving, diversified economy," Majewski argued that it also "shows how slavery created a political economy antithetical to long-term development" by stifling "innovation and invention," compared to the better educated, free-labor Midwest.[35]

While less comparative than Majewski's essay, this dissertation's analysis of the evolving agricultural system of the Bluegrass under slavery suggests a great deal of innovation occurred, especially in those commodities and industries most heavily capitalized and associated with slavery, such as hemp and purebred livestock. It also demonstrates that central Kentucky farmers proved adept at applying inventions developed elsewhere to their own operations. This implies the "long-term development" of the Bluegrass economy, at least as benefited the slice of the white population able to control enslaved labor, need not have relied on the same level of investment in education and innovation as seen in the Midwest. On the whole, the history of enslavement in the Bluegrass demonstrates the malleability of the institution and another set of linkages connecting American slavery to American capitalism.

Outline:

Stretching back to the centuries before Euro-American incursions, early chapters establish *Bluegrass Capital*'s interdisciplinary approach that mixes archeological, anthropological, biological, and historic data. With the arrival of whites, written records

[35] John Majewski, "Why Did Northerners Oppose the Expansion of Slavery?: Economic Development and Education in the Limestone South" in Sven Beckert and Seth Rockman, eds., *Slavery's Capitalism: A New History of American Economic Development* (Philadelphia: University of Pennsylvania Press, 2016), 279-280.

proliferated, yet scientific evidence continues to provide vital confirmation of textual accounts and speaks to aspects of life overlooked by those doing the writing. Nonetheless, the study taps into the wide, and expanding, range of records that provide individual vistas on certain aspects of the landscape and attempts to knit them into something resembling a tape stry of the dynamic local environment. The dissertation weaves together evidence from diverse sources including personal and business correspondence, journals, diaries, newspapers, travel accounts, commodity prices, farm ledgers, financial notebooks, statute law and legal proceedings, wills and estate inventories, slave narratives and even the arts, like poetry and portraiture.

The dissertation is organized into three chronological sections, each broken into three thematic chapters. Section one covers the period up to 1792, when Kentucky left Virginia to form its own commonwealth within the United States. After this introduction, chapter two traces the landscape in the centuries prior to Euro-American arrival in Kentucky, utilizing primarily scientific sources. Chapter three traces the physical changes to local ecological communities in the decades before and after white settlers, those they enslaved, and the biological fellow travelers that arrived with them set down roots. Chapter four focuses on the human components of the declining and rising agroecosystems over these years, exploring the divergent ways in which different groups experienced the landscape.

Section two follows the Inner Bluegrass landscape through the final years of the eighteenth century into the first three decades of the nineteenth. Chapter five bridges the transition, looking at the demands the nascent agroecosystem made on the political

system of early Kentucky and the nation, including on the successful movement for statehood, agitation for free access to the Mississippi River, and the nationalistic embrace of the War of 1812. Chapter six extends the narrative of environmental change driven by the elaboration of an agricultural system in which certain white men harnessed an increasing share of the local metabolic processes to their own purposes. The chapter seven traces the implications of these ecological patterns out from the individual Bluegrass farms into the growing commercial and industrial sectors of the local economy, exploring the connections and similarities between the different aspects of the slave-based agroecosystem by 1830. In emphasizing the diversity of the overall landscape, these chapters also extend the discussion of residents' uneven, lived relationships with the local environment.

Section three covers the antebellum era. Chapter eight highlights the various tensions animating the changing local agricultural economy, including a transition toward higher value livestock, shifting crop regimes, and agricultural reformers' attempts at continued refinement of the landscape according to their increasingly exacting specifications. Chapter nine sketches the evolution of the Bluegrass transportation landscape, emphasizing both the ways in which transportation developments drove and were driven by agroecological imperatives. Chapter ten looks to the experiential landscapes of Inner Bluegrass enslavement in the decades of sectional strife that culminated in disunion in order to accurately establish the context for the chaotic and contradictory local responses to the crisis. A short conclusion, chapter eleven, muses on these responses in light of the more than ninety-year history of the slave-based

agroecosystem of the Inner Bluegrass. Throughout the narrative, the relationship between slavery, capitalism, and ecological change bobs likes a discarded hemp stalk, washed away from a field in a spring freshet: rarely below the surface for long.

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Section One:

Bluegrass Landscapes, 1000-1792: Introduction

If you ask a modern Kentuckian about the early history of the region, their most likely response would touch on Daniel Boone and the Long Hunters. Depending on their interest in regional history, they might also recall Boone's native contemporaries who likewise hunted in Kentucky and clashed with would-be American settlers. If pressed on the pre-Boone era, most well-informed Kentuckians would characterize the region as a hunting ground for various, non-resident bands of natives.[36] What most would not mention, however, is the long period of human occupation that occurred prior to Kentucky becoming an unsettled region.

This oversight contributes to two related misunderstandings about the history of the Bluegrass landscape. First, that no one called it home before American settlers arrived and second, that those natives utilizing the environment did so in such a way as to have little to no impact on the land. Taken together, these misunderstandings cast pre-settlement Kentucky as a pristine wilderness virtually free of human influence, visited only by the rare hunting party of "ecological Indians" who lived in balance with nature.[37] The archaeological and paleobotanical record, however, tells a different story.

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[36] Thomas D. Clark wrote of Kentucky, for example, "it was known that this beautiful land was home of no one…Rival Indian tribes hunted and fought in it, crossed and recrossed it, but seldom, if ever, lingered…the delight of every savage heart; it had springs, salt licks, and game in abundance. But always the Indian homes were north of the Ohio or south of the Cumberland." See *A History of Kentucky,* 6th ed. (Ashland, KY: The Jesse Stuart Foundation, 1988), 22.

[37] I take the term from Shepard Krech III. *The Ecological Indian: Myth and History*. (New York: W. W. Norton, 1999).

Examining the long-term relationship between Kentuckians and their environment reveals a complex and dynamic relationship in which both human culture and wild nature continuously and mutually evolved. This section resists the tendency to bracket the early people of Kentucky off from the "real" history that began with the first encroachments of white traders and hunters. Instead, it focuses on the long and underappreciated native occupation of the Bluegrass before the eighteenth century and aims to recreate their relationship with the landscape. This hidden history of people and the environment in Kentucky serves as the necessary backstory to understanding later environmental transformations which are traced in the final chapters of the section.

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Chapter Two: The Bluegrass Before Boone

Let us begin with the soil, a feature of the Inner Bluegrass environment long celebrated as "of an unequalled fertility."[38] On a basic level, soil anchors the landscape. The richness of the former allows for the richness of the latter. While the would-be settlers during the eighteenth century might have been the first to positively identify this correlation, previous native inhabitants certainly appreciated products of central Kentucky's rich soils too.

The soil itself is actually the product of long-term interactions between geology and climate. The geologic subsoil provides the raw material that is transformed into dirt by erosion, weathering and biological processes. The Inner Bluegrass region is underlain

[38] Bodo Otto to Charles Gravier, March 11, 1786, English translation of French original, SC 288, Kentucky Historical Society, Frankfort, KY.

by Middle Ordovician Lexington limestone, the chemical properties of which distinguish it from the surrounding areas. Over millennia the phosphatic limestone became the rich Alfisols and Mollisols that now characterize the region.[39] These soils are typically rich brown loams containing sand, silt and clay. Inner Bluegrass soils are further distinguished by their relatively high levels of phosphorous, another product of the local subsoil.[40]

The subsoil and precipitation also shape the topography of the region. The highly soluble limestone allows for underground drainage and creates the sinks and springs that form prominent features of the landscape. Sinks form through the downward flow of surface water through depressions in the limestone, dissolving and enlarging openings in the stone in the process. Over the long term, this process contributes to the gently rolling terrain. Such underground drainage also frequently reemerges via springs. Springs have attracted humans and animals alike, influencing everything from the trails or traces established by buffalo to the sites of settlements such as Harrodsburg and Lexington.[41]

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[39] A.J. Woods, J.M. Omernik, W.H. Martin, G.J. Pond, W.M. Andrews, S.M. Call, J.A. Comstock, and D.D. Taylor, *Ecoregions of Kentucky: color poster with map, descriptive text, summary tables, and photographs* (Reston, VA., U.S. Geological Survey, 2002) <http://www.epa.gov/wed/pages/ecoregions/ky_eco.htm#Ecoregions%20denote> (accessed September 13, 2014).

[40] Mary E. Wharton & Roger W. Barbour. *Bluegrass Land and Life: Land Character, Plants, and Animals of the Inner Bluegrass Region of Kentucky, Past, Present and Future*. (Lexington: University Press of Kentucky, 1991), 8-12.

[41] Ibid., 16-18.

Creeks, most of which drain into the Kentucky River, also crisscross the landscape in areas of low elevation.[42] The river and its larger tributaries form a distinct ecological zone from the surrounding rolling plain. Over time erosion has carved steep valleys in the limestone, revealing striking gradations along the Kentucky River palisades. Both the flora and fauna of this portion of the Inner Bluegrass differ from the rest of the region and provide a different set of natural resources for the local human populations. Aquatic life represented important components of the environmental setting for most residents, and waterways proved extraordinarily significant routes of transportation during the historic period.

All of these landscape features only emerged in conjunction with precipitation, itself a product of wider climatic patterns. The weather of the Inner Bluegrass region is largely the product of prevailing atmospheric conditions, which see dry, cold air from Canada collide with moist, warm air arriving from the Gulf of Mexico. The result is a relatively warm, temperate climate with high humidity and high day-to-day variations in temperature and conditions. On average, the difference between the warmest and coldest yearly temperatures is 95°F and occurs in what might be called an "invigorating" pattern with a lengthy warm growing season, distinct spring and fall seasons and cold, occasionally harsh, winters.[43] Precipitation averages 44 to 47 inches per year and is

[42] Bourbon and Harrison counties, however, are drained by the South Fork of the Licking River, which does also empty into the Ohio River.

[43] Jerry Hill, *Kentucky Weather*. (Lexington: University Press of Kentucky, 2005), 40-41. These modern averages might have differed some in the past, but are fairly representative of the broad contours of Kentucky climate. Here "growing season" refers to the period between the last frost of spring and the first frost of fall and generally lasts approximately 180 days in central Kentucky. See Hill, 50.

relatively evenly distributed throughout the seasons when analyzed over a span of decades. Within the course of an individual year, however, the region might experience periods of excessive rain and attendant flooding or drought exacerbated by underground drainage.[44]

Judged against the span of a single human life, or even against the length of recorded human history in the Inner Bluegrass, the climate operates according to relatively stable patterns. The seasonal cycle might be said to begin in late March when temperatures start to warm and plants begin to spout, some snow might fall in early April, but by the end of the month and into May mild conditions prevail and rain showers are common. The countryside takes on a green hue of vegetation that it retains through the summer months, except during periodic droughts.[45] From June through August average daily high temperatures reach into the eighties, dropping into the sixties overnight. September sees falling temperatures and the driest average conditions of the year before the leaves begin to turn and autumn begins in earnest. By November, average highs only reach the mid-fifties and snow often falls late in the month. Winter stretches from December through February with cold temperatures, average highs topping out in the mid-forties, and nearly a foot of snow each season.[46] All residents of the Inner Bluegrass lived within these cycles and gained an intimate, hands-on

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[44] Jerry Hill and H. Michael Mogil. "The Weather and Climate of Kentucky" in *Weatherwise* 65, no. 5, 2012: 26-32 and Wharton & Barbour 18.

[45] Most summers do not see such significant droughts as to cause severe difficulties, as over twelve inches of rain fall during the average summer. "Climatology-Lexington, KY" National Weather Service Forecast Office. http://www.crh.noaa.gov/lmk/?n=clilex accessed 10-4-2014.

[46] "Climatology-Lexington, KY" National Weather Service Forecast Office.

knowledge of the climate that allowed for reasonable, if broad, predictions of what to expect from season to season and year to year. Judged against a longer scale, however, climate emerges as a dynamic factor influencing the development of the landscape.

Extremely cold periods, known as ice ages, saw glaciers advance from the north to the borders of modern-day Kentucky. The climate of the region cooled, but water continued to flow in rivers and streams for most of the year. When drainage from the Inner Bluegrass, via the Licking and Kentucky Rivers, reached dams created by the advancing ice sheet it contributed to a growing series of lakes, which eventually spilled over their banks and combined to carve the Ohio River valley in the landscape.[47] The last period of glaciation in the Ohio Valley began to subside some 14,000 years ago and temperatures began to rise.[48] Conditions fluctuated in subsequent centuries, including a notable drop in temperatures during the so-called "little ice age" of 1550 to 1850, but nothing approached the magnitude of change associated with earlier cold spells. Human populations survived the challenges the climate produced, albeit not without significant hardship, as we shall see.

Early Humans in Kentucky

Documented human history in the modern-day Bluegrass dates back to approximately 9,500 B.C. and encompasses several distinct periods. Scholars define these periods, or archaeological contexts, by the surviving artifacts uncovered through careful excavation. In Kentucky, the standard periodization of archaeological research

[47] Jerry Hill, *Kentucky Weather*. (Lexington: University Press of Kentucky, 2005), 15.
[48] Ibid., 16, 19.

begins with the Paleoindian period from approximately 9,500 to 8,000 B.C., followed by the Archaic from 8,000 to 1,000 B.C., the Woodland from 1,000 B.C. to 1000 A.D., the Fort Ancient from 1000 to 1750, and finally the Historic period, which continues today.[49] People living in central Kentucky during each of these periods fashioned lives for themselves from the raw materials at hand, from the landscape they inhabited. The cultural toolkits they brought to bear in their efforts were both responses to ecological challenges *and* influences on the continued evolution of the environment. This dialectic, in which culture and nature were mutually influential, characterizes each period, though the relative weight of each factor changed over time. The research done by archaeologists on the region helps shed light on the dynamics of this changing relationship.

Specialists on the Paleoindian period further distinguish between Early, Middle and Late phases based on changes in projectile technology and associated changes in subsistence strategies. These cultural modifications stemmed from the complex interaction of a range of environmental factors. The earliest documented human residents of Kentucky, like those across much of North America, crafted distinctive fluted projectiles known as "Clovis points." Sites containing these artifacts are typically small, indicating "ephemeral occupations" and frequent relocations.[50] Unfortunately these small sites also provide relatively scant clues about Early Paleoindian subsistence

[49] David Pollack, introduction to *The Archaeology of Kentucky: An Update, Volume One, State Historic Preservation Comprehensive Plan Report No. 3,* ed. David Pollack (Frankfort: Kentucky Heritage Council, 2008) 4-8.
[50] Greg Maggard and Kary Stackelbeck, "Paleoindian Period," in Pollack, 118.

practices. The Clovis groups of Kentucky "have long been characterized primarily as big game hunters" who relied on the mega-fauna of the Pleistocene era for their survival, but scholars have no conclusive evidence of butchering sites in the state.[51] This lack of evidence does not necessarily indicate the Early Paleoindians never hunted large game as the sites may yet be discovered or the artifacts might not have been preserved. Two Bluegrass sites, the Adams Mastodon site of Harrison County and the Clays Ferry Crevice in Fayette County in the Kentucky River gorge, offer suggestive indications of the relationship between Pleistocene megafauna and Early Paleoindians. At both sites researchers uncovered megafauna remains and clear evidence that Paleoindians processed and consumed the animals, mastodon and mammoth respectively. In neither case, however, were the archaeologists able to conclusively rule out post-mortem scavenging of the megafauna corpses in favor of a deliberate kill by humans.[52] While determining the exact sequence of events that occurred at these sites or the mastodon's cause of death remains impossible, the evidence strongly suggests that early Paleoindians in the Bluegrass incorporated Pleistocene era megafauna into their subsistence strategies.

Without discounting the likelihood that early Paleoindians consumed large animals, recent research reveals a more generalized pattern of resource use than that

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[51] Ibid., 121.

[52] Ibid., 152-153. Both sites are located near sinks, which would have attracted both humans and animals. For more on the Harrison County site, see Matthew M. Walters, "The Adams Mastodon Site" in *Paleoindian and Archaic Research in Kentucky*, eds. Charles D. Hockensmith, David Pollack, and Thomas N. Sanders, (Frankfort: Kentucky Heritage Council, 1988) 43-46.

described by earlier interpretations, which characterized Clovis groups as big game specialists. Small game and plants also played a role in early Paleoindian diets.[53] The Middle Paleoindian phase shared many aspects with the preceding, but can be distinguished by changes in material culture including an increase in the diversity of tools. Archaeologists speculate that these changes reflect a broadening of the resources utilized by the Paleoindians and an increased regionalization of landscape knowledge.[54] Taking advantage of a greater range of environmental assets would have been particularly appealing to Kentuckians of the period as climatic changes reshaped the ecology of the region. Climate change contributed to the decline and ultimate extinction of most species of Pleistocene-era megafauna, thereby removing the possible caloric bonanza from the Paleoindian diet, however it had previously been obtained.

The causes of the mass extinctions late in the Pleistocene have long been the subject of scholarly debate. To many, the temporal connection between the earliest documented people in North America and the rapid disappearance of species must be more than mere coincidence. By the 1960s, some scholars proclaimed that "man, and man alone, was responsible" and Paleoindians took on the character of super-hunters who rapidly slaughtered their way through entire populations of enormous prehistoric animals.[55] The extinctions included the aforementioned mammoth and mastodon, as well as slow-moving ground sloths that weighed hundreds of pounds, giant armadillos

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[53] Ibid., 121-122.
[54] Ibid., 126.
[55] Paul S. Martin, "Pleistocene Overkill," *Natural History* 76 (December 1967): 32-38, p. 36. Quoted in Shepard Krech III, *The Ecological Indian: Myth and History* (New York: W. W. Norton, 1999), 29.

and giant caribou; at least thirty-five mammal genera disappeared.[56] These large and exotic species have understandably drawn much of the focus from academics, in part because of the assumption that they would have drawn a similar focus from hungry Paleoindians. The traditional interpretation, often known as the "overkill" hypothesis, posits newly arrived Paleoindians encountered species that evolved in a human-free environment and therefore lacked a healthy fear of the dangers people posed. In this narrative, the Paleoindians developed such efficient large game hunting techniques that they destroyed the very species those techniques depended upon.

More recent research, however, suggests a more complicated series of factors leading to the Pleistocene extinctions. On one level, some archeologists and paleontologists have called attention to the contemporaneous extinctions of minifaunal, or small animal, species, which do not figure in older interpretations and seem unlikely to have been wiped out by human predation. Few remains exist of insects or plants, but at least ten genera of birds disappeared during the same period, including many species that would not have contributed significantly to the Paleoindian diet. This represented an approximately equal percentage of avian species as were wiped out among the megafauna.[57] Other scholars have argued in favor of a "hyperdisease" hypothesis, which holds that humans and their attendant species brought virulent strains of disease with them and infected the novel animals they encountered. The native fauna, having

[56] Krech, 33.
[57] Ibid., 38. See also David W. Steadman and Paul S. Martin, "Extinction of Birds in the Late Pleistocene of North America" in *Quarternary Extinctions: A Prehistoric Revolution* (Tucson: University of Arizona Press, 1984), 466-477.

evolved with no immunities to these diseases, quickly succumbed.[58] The "hyperdisease" theory has its critics, however, and studies based on modern analogs seem to undermine its utility as a stand-alone explanation.[59]

Interpretations of this dramatic extinction event now stress climatic change as a leading factor among many. Rising temperatures and drier conditions changed vegetation patterns and reconfigured the habitat in such a way that many species were unable to adapt or were left in such a weakened state that Paleoindian hunters put the final coup de grâce to their populations. Scholars like R. D. E. MacPhee and P. A. Marx caution that examining the extinctions on an individual basis suggests that each species failed in its own way; "factors like biomass, reproductive biology, overspecialization, feeding strategies, dependencies, and competition" contributed to a specific population's vulnerability in the unstable environment created by a changing climate.[60] The best current explanation emphasizes the diverse range of likely causes while acknowledging that specifics and certainty are hard to nail down given the sparse evidence researchers depend upon.[61]

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[58] R. D. E. MacPhee and P. A. Marx, "The 40,000 year plague: Humans, hyperdisease, and First Contact Extinctions" in *Natural Change and Human Impact in Madagascar*, ed. S. M. Goodman and B. D. Patterson, (Washington D.C.: Smithsonian Institution Press, 1997), 168-217.

[59] Kathleen Lyons, S., Felisa A. Smith, Peter J. Wagner, Ethan P. White, and James H. Brown. 2004. "Was a 'Hyperdisease' Responsible for the Late Pleistocene Megafaunal Extinction?" *Ecology Letters*. 7, no. 9: 859-868.

[60] Krech, 39.

[61] Robert L. Kelly and Mary Prasciunas, "Did the Ancestors of Native Americans Cause Animal Extinctions in Late-Pleistocene North America?: And Does it Matter if the Did?" in *Natives Americans and the Environment: Perspectives on the Ecological Indian*, (Lincoln: University of Nebraska Press, 2007), 95-122.

Whatever combination of factors caused the late Pleistocene extinctions, the rapid changes created a new ecological context. If one privileges the overkill hypothesis, then humans were the zealous authors of key aspects of the environmental changes. If climatic factors are given highest billing, then human predation might be seen as a secondary or even inconsequential factor. According to the "hyperdisease" theory, humans acted mainly as vectors transferring the real agents of change, disease strains, to defenseless populations of native species. A multi-causal interpretation might posit a role for each of the above factors and attach a further list of influences. However, for the human populations living in the Bluegrass the answers to such questions were less important than the changes the questions are posed to explain. They responded to the evolving ecological circumstances by adapting their cultural toolkit. Whatever the role of Paleoindian culture, whether in the form of predation or disease, in creating environmental change during the late Pleistocene, people responded to the changing landscape through changes in their material culture and subsistence practices.

The Middle and Late Paleoindian phases saw increased diversity and specialization of tools. Archaeologists speculate these changes were linked to an increased regionalization of material culture as Paleoindian groups "settled in" and "became increasingly familiar with the landscapes they occupied" exploiting a wider range of locally available resources and moving less frequently.[62] Some argue that this broadening of resource utilization arose in direct response to the collapse of megafauna populations, while others believe it was the continuation of long-term trends associated

[62] Maggard and Stackelbeck, 129.

with a group gaining knowledge of a changing environment over the course of generations.[63] In either case, the Late Paleoindian period saw a gentle acceleration of trends of cultural adaptation to particular local environments and a dialectic in which each influenced the other.

Archaeologists date the Archaic period that followed from 8,000 to 1,000 B.C. Evidence from the Early Archaic period, like the Paleoindian, suggests that social units were likely small, mobile bands of related individuals. While these people utilized a wider range of resources than their predecessors, they continued to rely mainly upon game and researchers have recovered very few tools for plant processing. [64] By the Middle Archaic period (6,000 to 3,000 B.C.), native groups displayed an increasing regionalization of cultures, as revealed by the variety of specialized implements that first appear at these sites. One of the most significant modifications of Archaic material culture to occur during this phase was the emergence of groundstone tools used to process plant materials into suitable human food.[65] The groundstone implements required more initial labor than their flaked stone counterparts, but lasted much longer and allowed Archaic-era Kentuckians to tap new sources of calories, particularly in the form of nuts and seeds. Some researchers argue that this shift reflected a decrease in Archaic mobility as groups were able to meet their subsistence needs within a smaller physical space. This novel development contributed to "a very generalized resource exploitation strategy" dependent on both hunting, especially of white-tailed deer and

[63] Ibid., 129.
[64] Richard W. Jefferies, "Archaic Period" in Pollack, 203.
[65] Ibid., 206.

turkey, and gathering local wild plants.[66] The Late Archaic period (3,000 to 1,000 B.C.) witnessed a continuation of the on-going trends toward greater regional specialization and the adaptation of new technologies to more efficiently utilize native flora and fauna.

In comparison with Late Archaic settlements in the rest of the state, those of Central Kentucky tended to be of fewer individuals and were occupied for a short term, often near sources of water.[67] Artifacts recovered from these sites provide evidence of stone tool production, hunting, butchering and plant processing.[68] The relative lack of large, long-term occupation sites in the Bluegrass Region might, counterintuitively, suggest that the landscape provided such an evenly distributed bounty that concentrating settlement in a particularly rich locale proved unnecessary.[69] It is perhaps for a similar reason that no evidence has yet been uncovered to suggest Bluegrass residents of the Archaic period participated in the early process of domesticating local plant species, as recent research has argued occurred in the mountains of eastern Kentucky.[70]

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[66] Jefferies, 209.
[67] Ibid., 262.
[68] Jefferies, 262 and Christopher A. Turnbow, Cynthia E. Jobe and Nancy O'Malley, *Archaeological Excavations of the Goolman, DeVary, and Stone Sites in Clark County, Kentucky.* Archaeological Report No. 78. (Department of Anthropology, University of Kentucky, 1983).
[69] Turnbow et al., 29.
[70] For evidence of Appalachian plant domestication see Jefferies, 303. An area "where archaeologists have greatly expanded our knowledge over the past 20 years is the establishment of eastern Kentucky as a center of plant domestication. Much of the new data used to do this comes from research carried out in the dry rockshelters found in Daniel Boone National Forest and adjacent areas. Collectively, botanical materials preserved in the rockshelters and open-air sites are helping to refine our understanding

During the following era, however, people in the Inner Bluegrass did begin cultivating native plants and thereby took a more active hand in shaping the landscape. Archaeologists characterize the Woodland period from 1000 B.C. to A.D. 1000 as "a time of cultural continuities as well as cultural innovations."[71] The adoption of pottery marked the beginning of the period and a new reliance on maize-based agriculture signaled its end.[72] Cultural continuities from the previous era included a continued reliance on food collection as the main source of calories, similar groundstone tools for food processing and typically small social groups. Cultural innovations saw the elaboration of textiles, adoption of the bow and arrow, and the development of some substantial nucleated settlements, often centered on a ritual mound or mounds.[73]

Evidence suggests that the rituals of Woodland-era residents of central Kentucky often included elaborate feasting. These celebrations entailed an extravagant version of the usual Woodland menu that might include deer, turtle, birds, fish or mussels in addition to the plants gathered in the wild or, increasingly, cultivated in gardens.[74] Plant husbandry intensified and central Kentuckians took part in the Eastern Agricultural Complex (EAC), which incorporated native cultigens sunflower, maygrass, and giant ragweed with tropical cultigens such as corn, squash and gourds. Despite these changes,

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of when and how Archaic hunter-gatherers domesticated the area's native cultigens. Based on this research, the Red River Gorge area is taking a place beside Mesoamerica, the Andes, China, and southwest Asia as a center of plant domestication."

[71] Darlene Applegate, "Woodland Period" in Pollack, 339.

[72] Ibid., 342.

[73] Ibid., 339.

[74] Ibid., 344.

Woodland people continued to rely more heavily on their hunting and gathering than on their gardening.[75]

The Dreaming Creek site in modern-day Madison County on the edge of the Inner Bluegrass provides a quality example of a Woodland-era settlement. Animal remains recovered from the site indicate deer, turkey, raccoon and small- to medium-sized mammals were processed and consumed there. It also contains evidence of plant food utilization, including indications that residents depended more heavily on cultigens during the summer and fall months when they were fresh and relied on stores of wild nuts during the winter and spring. Researchers remarked further on the co-occurrence of EAC crop species with tropical species, suggesting the wide variety of resources drawn upon by the residents of Dreaming Creek.[76] The trend toward greater dependence on domesticated plants documented by archaeologists using sites like Dreaming Creek culminated in a new cultural context defined by agriculture known as the Fort Ancient period.

Fort Ancient Culture in the Bluegrass

The type and scope of cultural influence on the landscape of the Bluegrass Region changed significantly with the Fort Ancient culture that existed from 1000 to 1700. In his discussion of the Fort Ancient economy, archeologist William E. Sharp explained that "[a]griculture was the main food source, and corn, beans, and squash were the important crops."[77] Cultivation also included sunflower and tobacco, while the

[75] Ibid., 346.
[76] Ibid., 473.
[77] Sharp, 178.

growth of sumac was encouraged.[78] Isotope analysis of Fort Ancient remains reveals that as much as 65-75 percent of calories came from corn, which demonstrates the central role of maize in the Fort Ancient diet.[79] Animal protein came from a variety of sources including freshwater mussels, fish, reptiles and small mammals, but was derived primarily from larger game, especially deer, bear, elk and wild turkey. Fruit and nuts gathered from the local environment further supplemented Fort Ancient subsistence.[80] Archeologists describe Fort Ancient "swidden" agriculture as following "a shifting field strategy that was based on low labor input and was extensive rather than intensive in nature. Field locations were not fixed, and concepts of land ownership and tenure were probably never firmly developed."[81] Fort Ancient culture did not exist in idyllic harmony with "nature," but instead actively modified it. By partially clearing and maintaining rotating fields of corn, beans and squash, Fort Ancients tailored the environment to their needs.

Fort Ancient settlement patterns distributed alterations widely, which avoided permanently degrading ecological systems. Settlement locations were characterized by high quality agricultural soils and often situated to take advantage of multiple ecological zones. Archeologists believe community size increased over time as Early Fort Ancient villages might have included no more than 50 individuals, whereas Late period

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[78] A. Gwynn Henderson. "Fort Ancient Period." In *The Archeology of Kentucky: An Update, Volume Two, State Historic Preservation Comprehensive Plan Report No. 3*, edited by David Pollack, 739-902. (Frankfort: Kentucky Heritage Council, 2008), 744.
[79] Ibid.
[80] Ibid., 744.
[81] Sharp, 179.

settlements are estimated to have numbered between 250 and 500 people.[82] Villages were usually in a location for only 10 to 30 years before moving to a new site. This strategy allowed the Fort Ancients to avoid exhausting local agricultural land and eased the pressures on game populations. The sites might be reoccupied at a later date or be converted for agricultural production.[83] These temporary villages lessened the environmental impacts of native Kentuckians' material economy. The extensive nature of these cultural adaptations created a landscape dotted with former fields in different stages of ecological succession and "open" patches of forest Europeans later found so remarkable.

The Muir site, located on a ridge in modern-day Jessamine County, illustrates many of the cultural characteristics of the Fort Ancients and hints at their relationship with the Inner Bluegrass landscape. Radiocarbon dating indicates people occupied the site during the eleventh and twelfth centuries, building simple residential structures along the ridge crest above the Jessamine Creek. Archaeologists have recovered a variety of tools ranging from utilitarian groundstone implements to fine bone tools used to work with hides or fashioned into fishhooks. Fishing, however, seems to have been of relatively minor importance for residents of Muir. Instead of fish, people relied on deer, elk and bear for nearly ninety percent of their protein. Turkey and a "variety of other mammals, including beaver, raccoon, gray fox, dog, gray squirrel, woodchuck, otter, bobcat and opossum" provided variety.[84] Researchers speculate that the location of

[82] Henderson, 745.
[83] Sharp, 179.
[84] Henderson, 765.

Muir allowed residents to take advantage of the biologically rich ecotone along the edge of the forest and in the surrounding open forest habitat. The edge environments available to local Fort Ancients also facilitated their procurement of food plants. The botanical evidence from Muir indicates that residents utilized both cultivated and wild species. Domesticated plants included maize and beans, both tropical cultigens, and components of the EAC that characterized the previous Woodland period, such as sunflower and knotweed.[85] Taken together, the evidence gathered at Muir suggests a human population possessing an extensive knowledge of the local environment and how to thrive within it, including through the cultivation of introduced domesticated crop species.

The stresses placed on any one area were reduced by the practice of seasonal mobility. This movement indicates native groups utilized resources from a wider territory than the main village encampments alone suggest. For example, archeologists who studied the Goolman site in Clark County concluded it was a small winter hunting camp. Analyzing the many whitetail deer remains found at the site, specifically their tooth eruption patterns, revealed that the vast majority were killed between November and February.[86] This suggests that the Fort Ancient culture practiced a seasonal settlement system that archeologists label the "Miami-Potawatomi pattern."[87] Groups

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[85] Ibid.
[86] Christopher A. Turnbow and Cynthia E. Jobe, "The Goolman Site: A Late Fort Ancient Winter Encampment in Clark County, Kentucky," in *Late Prehistoric Research in Kentucky*, ed. David Pollack, Charles D. Hockensmith, and Thomas N. Sanders (Frankfort, KY: Kentucky Heritage Council, 1984), 25-48.
[87] Sharp, 179.

estimated at between 17 and 32 individuals, often extended families, separated from the main group during the fall to establish winter hunting camps in the headwaters of small streams before returning to the larger village in the spring.[88] This practice effectively distributed the Fort Ancients more evenly across the landscape during periods of relative resource scarcity. Field rotations, periodic village relocations and seasonal migrations made for a flexible material culture that allowed natives to use different resources during different seasons and spread their environmental impacts throughout the region.

Despite the appropriateness of the Fort Ancient cultural adaptations to the ecology of the region, archeological evidence suggests that tribal numbers began to decline as early as the sixteenth century. Sites from the period contain numerous artifacts of Euro-American culture, which suggests new connections with settlers on the eastern seaboard, and the number and size of Fort Ancient villages declined dramatically. The Fort Ancients had long engaged in interregional trade with other native groups, as the presence of marine objects hundreds of miles from the ocean attests, and articles of European material culture originally travelled along the same trade routes. Initially, European goods were repurposed by the native culture as prestige items, as scraps of metal were transformed into earrings, bracelets, beads and clips. By the mid-eighteenth century, however, regional natives increasingly incorporated European items like metal knives, kettles and flintlock guns into their

[88] Henderson, 745-746, 785-786.

culture.[89] Archeologists combine this evidence with reports from early travel narratives to argue that the mere presence of European settlers on the continent devastated native populations. As was the case across the hemisphere, the "most important indirect effect of the European presence was the diseases they carried with them from the Old World. The common cold, small-pox, chicken pox, influenza, measles, and other diseases penetrated the mid-continent with disastrous effects long before the first 'Long Hunter' crossed the Appalachians into the Ohio River drainage."[90] Thus, microscopic organisms struck the first blows for European "ecological imperialism" in Kentucky and significantly reduced the competition settlers like Daniel Boone eventually faced.[91]

By the middle of the eighteenth century, no permanent native communities called central Kentucky home, yet native groups nonetheless valued the region. Indeed, hunters from many different cultures utilized the rich animal populations that resided there. It was this use of the landscape that native warriors defended against the encroachments of Euro-American settlement. Hence, "the white Indian" Simon Girty inspired resistance by recalling that the "fertile region of Kentucky is the land of cane and clover—spontaneously growing to feed the buffaloe, the elk and the deer" where "the bear and the beaver are always fat" and "the Indians from all the tribes, have had a right from time immemorial, to hunt and kill unmolested these wild animals." The lack of historical depth to Girty's "time immemorial" was revealed, however, when he linked

[89] Ibid., 743-747.
[90] Sharp, 181.
[91] I take the phrase from Alfred Crosby, Jr., *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (Cambridge: Cambridge University Press, 1986).

the right to hunt directly to the market opportunities provided by skins. Hunting in central Kentucky was essential "to purchase…clothing—To buy blankets for their backs and rum to send down their throats."[92] The world of the Fort Ancient no longer existed and the landscape continued to evolve under the changing circumstances.

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[92] Thomas D. Clark, *A History of Kentucky* (New York: Prentice-Hall, 1937), 34; John Bradford, *The Voice of the Frontier: John Bradford's Notes on Kentucky*, ed. Thomas D. Clark (Lexington: University Press of Kentucky, 1993), 49. For more on Simon Girty see Craig Thompson Friend, *Kentucke's Frontiers* (Bloomington: Indiana University Press, 2010).

Chapter Three: The Environment of the Bluegrass Frontier

Felix Walker first traveled to the Bluegrass in March 1775 with Daniel Boone. The men were part of an advance group sent to blaze a trail and establish the settlement that became Boonesborough on the south bank of the Kentucky River. Walker later recalled that the members of his party felt themselves "as passengers through a wilderness just arrived at the fields of Elysium, or at the garden where there was no forbidden fruit" upon their first views of "the pleasing and rapturous…plains of Kentucky."[93] They found the richest soil they had ever seen "covered with clover in full bloom, the woods…abounding with wild game—turkeys so numerous that it might be said they appeared but one flock, universally scattered in the woods. It appeared that nature, in the profusion of her bounty, had spread a feast for all that lives."[94]

Yet, Walker's dreams of an edenic garden ended two days later when native hunters awakened the party by firing on the camp. Two men were killed, including an enslaved African American man, and many suffered wounds. Those who escaped physical harm sustained psychological trauma and "hope vanished" from the group. The attack "cast a deep gloom of melancholy over all our prospects, and high calculations of long life and happy days in our newly-discovered country were prostrated." [95] As Walker recalled events, only the determined leadership of "Col. Boon" during those trying days allowed

[93] Felix Walker, "Narrative of an Adventure in Kentucky in the Year 1775," *De Bow's Review* 16, no. 2 (February, 1854): 152.
[94] Ibid.
[95] Ibid.

the company to establish Boonesborough, which became an important beachhead in Anglo-American efforts to control the Bluegrass region.

The general arc of this story has been told countless times in American history: a pioneer marvels at the rich, new, western landscape and envisions their bright prospects before facing unexpected obstacles in the form of native people or other "natural" barriers, which are overcome through perseverance and individual effort. It might be tempting to view these anecdotes as little more than dramatic tales told in support of American expansionism, but a deeper look reveals a more significant meaning. As the "first west" settled across the Appalachian Mountains from the seaboard colonies, what transpired in Kentucky played an important part in shaping what unfolded across the continent, establishing both a precedent and a pattern.[96] Therefore, examining the motivations and experiences of the earliest pioneers to establish a permanent settlement in the region can illustrate the genesis of what became such a powerful movement for decades to come.

Walker's party was drawn to the region and enraptured by the environmental bounty they perceived to be there for the taking. Significantly, Walker conceived of the region as embodying "nature's simplicity…unbroken by art."[97] This misunderstanding on the part of Anglo Americans, the erroneous belief that the lack of recent native occupation was indicative of no human influence on the region at all, led to Walker's rude awakening when shots rang out from native people. And this set the stage for a decades-

[96] Aron, 2.
[97] Walker, 152.

long struggle for control of Kentucky. At the heart of the conflict lay differing conceptions of land use. Equipped with European cultural traditions of private property and individual ownership of land, men like Walker did not recognize the inherent legitimacy of native claims to the land, which were based on seasonal hunting excursions rather than permanent settlement. Instead, pioneers emphasized an image of the region as "the Bloody Ground," site of "continual wars and quarrels of the hunting parties of Indians of different tribes…who murdered and plundered each other."[98] Through the eyes of the settlers, it was only through their efforts that the barbarous "Bloody Ground" might be transformed into the civilized "fields of Elysium" they envisioned.

From 1750 to 1792, the pace of environmental change in the Bluegrass landscape accelerated dramatically. As colonial explorers first trickled through and settlers later poured into the region, the natural world was subjected to a range of new influences, unique in the environmental history of the region. The scope of landscape change exceeded anything seen since at least the Pleistocene era, when climate change contributed to the extinction of local megafauna and a reworking of the regional ecosystem. The rapid rate of change and the systematic forms it took in the late 18th century, however, distinguished the environmental transformations of that period from all that preceded it, many of which were discussed in the previous chapter.

After 1770, not only did portions of the physical environment undergo a dramatic biological simplification and entire species succumb to new pressures, but Anglo-American settlers also began to impose a new ideological framework on the land itself.

[98] Ibid., 150.

The implementation of a European-style system of landownership necessitated a shift in how the land was conceived: land became a commodity. By definition, the land could now be possessed, "owned" by an individual or individuals who would then hold the sole right to determine its' future use rather than a prior view of the land as a resource to be utilized within an established framework by those who claimed an ancestral connection to the landscape. The process of commodification was a messy affair, complicated by the on-going conflict with native hunters and a disorderly system of land distribution under the direction of the Virginia colonial, and then state, government. Nonetheless, by 1792, less than twenty years after Walker and his party first arrived in the region, Anglo Americans accomplished the process of transforming the Bluegrass landscape into a salable commodity, forcibly imposing their worldview on a new portion of the earth. This fundamental change facilitated all future alterations wrought on the countryside, as settlers established and refined their unique agroecosystem.

In addition to the environmental changes, the ways in which people experienced the landscape changed as well. Individuals filtered their perceptions of the land through their own cultural backgrounds and personal experiences. This meant natives and colonists, women and men, the enslaved and the enslavers, each interacted with the natural world that surrounded them in significantly different ways. The meaning of the frontier environment differed according to ones' position and culturally proscribed role within it.[99] The meanings different groups and different individuals applied to the

[99] Patrick Spero, *Frontier Country: The Politics of War in Early Pennsylvania* (Philadelphia: University of Pennsylvania Press, 2016), 6-9.

Bluegrass landscape held tremendous importance for the quality of people's lives and the direction of environmental change. Taken together, this chapter and the next explore both the transformations of the physical environment and the changes in how Bluegrass residents experienced that evolving landscape. They also aim to illuminate the connections between the two.[100]

The Settlement-era Bluegrass

Before examining the landscape transformations initiated during this period, it is important to set the stage as clearly as possible. Scholars from a range of fields have offered descriptions of the Bluegrass environment at the time of the initial incursions by Anglo American hunters, surveyors and settlers. In *Bluegrass Land and Life*, botanist Mary E. Wharton argued that the region was one of "dense canebrakes with scattered trees, meadowlands, and open forests of oak, ash, walnut, cherry, hickory, sugar maple, and others, with an abundance of grasses (including cane), legumes, and other herbaceous plants flourishing beneath as ample light reached the ground. Dense, closed forests undoubtedly covered land near the rivers and creeks."[101] Wharton based her conclusions

[100] I use the term "landscape" to describe both the sum product of human and environmental influences in the physical world and as something experienced subjectively by individuals. In both usages "landscape" is linked to people. "Environment," in contrast, is used to describe factors and influences that are independent of the human component. See Mart Stewart, *What Nature Suffers to Groe: Life, Labor, and Landscape on the Georgia Coast, 1680-1920*, (Athens: University of Georgia Press, 1996) for more on the logical distinction between the terms.

[101] Mary E. Wharton and Roger W. Barbour, *Bluegrass Land and Life: Land Character, Plants, and Animals of the Inner Bluegrass Region of Kentucky, Past, Present and Future* (Lexington: The University Press of Kentucky, 1991), 27-28.

on historical accounts and on the ecological lessons gleaned from remnant patches of original woodlands.

Pioneer and settler records provide ample support for Wharton's interpretation. Thomas Hanson, who surveyed land near the North Elkhorn creek in central Kentucky in 1774, described the land as "so good that I cannot give it due praise. Its undergrowth is clover, peavine, cane. Its timber is honey locust, black walnut, sugar tree, hickory, ironwood, hoopwood, mulberry, ash, and some oak."[102] Others focused on the open nature of the landscape. For example, Levi Todd recalled that during the 1770s, "The face of the country was…delightful beyond conception, nearly one half of it covered with cane, but between the brakes, spaces of open ground as if intended by nature for fields. The ground appeared fertile, and produced amazing quantities of weeds of various kinds, some wild grass, wild rye and clover."[103] As Thomas Perkins reported in 1785, the "under growth is so inconsiderable that you may ride thro the woods in any direction, unless prevented by Cane, which grows—especially on good land—very thick & high."[104] Even dramatic stories of border clashes mentioned settlers galloping "several miles…in open woods," the whole time able to "see Indians in their rear."[105] These types of accounts and the many comments about the grazing potential of cane and wild grasses, suggest the

[102] Thomas Hanson interview, vol. 24, box 85, Series CC: "Kentucky MSS," *Lyman C. Draper Manuscript Collection*, (Chicago: University of Chicago, Department of Photographic Reproduction, 1949) on microfilm at the University of Kentucky Special Collections Department, Lexington (hereafter cited as *DC*).
[103] Levi Todd interview, vol. 15, box 84, Series CC: "Kentucky MSS," *DC*.
[104] Thomas Perkins, "Letters of Thomas Perkins to Gen. Joseph Palmer Lincoln County, Kentucky, 1785," ed. James R. Bentley, *The Filson Club History Quarterly* 49 no. 2 (1975): 147-148.
[105] Bradford, 47.

existence of a savanna-like forest in which significant sunlight penetrated the canopy to the understory.[106]

Wharton bolstered her conclusions with analysis of remnant patches of original vegetation. She found the majority of the "survivors" from the earlier era were "widespreading trees with low branches…indicating that they were well spaced in their youth and did not develop in a dense forest." She argued further that the "mere presence of the bur oak is a significant indicator," since the species favors the open canopy of savanna-woodland ecosystems and is largely shade intolerant.[107] To botanist Wharton, these ecological anomalies demanded explanation, since rainfall averages, soil type, and temperature range, suggested the region would have been covered in dense forest absent some mitigating influence.[108]

Wharton suggested a number of factors contributed to these anomalous conditions. She argued "the most potent factor in the continuance of a savanna-like situation was the activity of large herbivores: great herds of bison trampling down tree seedlings as they grazed on cane and other grasses, and numerous elk and deer browsing on tree seedlings." These animals, however, "would only account for the perpetuation of a savanna or savanna woodland…not for its origin." Wharton ultimately based her explanation on climatic conditions ranging back at least 6,000 years that made the area

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[106] William Clinkenbeard interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*. For an example of praise for the natural grazing potential of the landscape see John Filson, *The Discovery, Settlement and Present State of Kentucky* (New York: Samuel Campbell, 1784), 23.
[107] Wharton, 30-31.
[108] Ibid., 31.

warmer and drier and therefore well suited for savanna-like vegetation.[109] Thus, the environment the early American settlers confronted was the product of complex interactions between climate, vegetation and animal life. Significantly, Wharton did not envision human actors as important players.[110]

Other scientific studies have attributed a greater role to human influences on the presettlement landscape. For example, "Anthropogenic Disturbance and the Formation of Oak Savanna in Central Kentucky, USA" (2008) by Ryan W. McEwan and Brian C. McCarthy found that the oak savanna ecosystem was the product of complex interactions between human and natural forces. Their timeline also differs significantly from Wharton's. By examining tree ring data from remnant old growth vegetation, they identified "release events" that occurred around 1800, when settlers began to clear canopy which had previously limited the oaks' growth. These events allowed oaks to triple their growth rates as competitors for sunlight were removed. They concluded that the oak savanna environment was not a prehistoric condition of the region, but a product of settlers' manipulation of the landscape. McEwan and McCarthy allowed that the "accounts of early settlers are consistent enough to substantiate the idea of some open area," but argued "these were probably part of a broader forest mosaic" in a "predominantly forested landscape."[111]

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[109] Ibid., 32.

[110] Wharton expressed skepticism about the impact native people had on the landscape, particularly through the use of fire because many trees listed in early surveys are fire-sensitive species and settlers left no mention of finding land burned.

[111] Ryan W. McEwan and Brian C. McCarthy, "Anthropogenic Disturbance and the Formation of Oak Savanna in Central Kentucky, USA," *Journal of Biogeography* 35, (2008): 970-971. Logically, this position makes a great deal of sense. Travel accounts

The existence of the canopy and thicker understory that hindered the oaks' growth, they believed, was the result of lower land habitation and utilization rates by Native Americans in the decades prior to Euro-American arrival because of declining populations due to European diseases. Prior to the decline of the Fort Ancient culture, they believed "Native Americans may have had a substantial influence on the [Inner Bluegrass Region's] landscape, including creating and maintaining some degree of canopy openness."[112] This influence helps to explain the pioneer and settler accounts of sections of open, savanna-like forests and large canebrakes; the vegetation patterns that Boone encountered and found so remarkable were actually fading evidence of the Fort Ancient culture's impact.

Just as the pioneers left evidence that lends support to Wharton's interpretation of an open forest created by climate and maintained by large herbivores, they also provided accounts that seem to substantiate McEwan and McCarthy's argument that the period prior to Euro-American settlement actually saw a decrease in the degree of forest openness. As William Clinkenbeard recalled of Bourbon County, it was a "[m]onstrous place to travel through once, grapevines, thorn-bushes, cane, and…plum bushes."[113] Others recalled the cane specifically as creating a dense understory as when Jesse Grady marveled at the fecundity of the native flora noting the virtual impossibility of "find[ing]

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often focus on the exceptional more than the mundane so it seems reasonable, given corroborating scientific evidence, to assume settlers stressed the open, park-like sections of the landscape more than their prevalence warranted.

[112] Ibid., 971-972.

[113] William Clinkenbeard interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*.

10 acres of uncleared land that was not cane" often "some 12 feet high."[114] They often posited that it was only after settler livestock devoured the cane that the landscape took on its characteristic open woodland appearance. Clinkenbeard mused that he "thought they never would get it [cane] out of this country when I came, but now it is scarce and a curiosity."[115]

Confronted with two cogent, fact-based ecological interpretations, each of which can be supported by the historical record, one might be tempted to declare the past landscape too elusive for description.

Yet, the two need not be mutually exclusive: the messy, historical reality is that both interpretations explain certain aspects of the landscape and the factors that shaped them.[116] Both acknowledge that some sections of the landscape did not perfectly fit their overall characterization of the region's vegetation patterns. Wharton recognized that parts of the environment were likely densely forested in much the same manner as described by McEwan and McCarthy, while they accepted that the oak savanna environment documented by many early explorers and settlers did accurately portray some sections of the landscape. The main difference between the two is one of degree, not kind. Each also recognized that the land supported a mixture of open, savanna-like woodlands and denser, largely closed-canopy forests, but disagreed on the relative proportions of each. A synthesis of the two perspectives is possible. Namely, prehistoric

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[114] Jesse Graddy interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*.
[115] William Clinkenbeard interview, *DC*
[116] This synthesis also usefully accounts for the seeming contradictions in the accounts of many early settlers who mention both the open aspects of the forest as well as the existence of dense, impenetrable stands of growth in other places.

climatic conditions created an open canopy forest that allowed for cane and grasses to grow in the understory. As average temperatures dropped and precipitation increased over the course of millennia, some areas transitioned into a dense forest, but the other savanna-like sections remained because of the influences of both Fort Ancient agriculture and large herbivores. The decline in Kentucky's native population after Europeans arrived on the Atlantic coast likely meant the open sections were shrinking in the period before white settlement. This trend reversed, however, when white pioneers began to clear portions of the landscape, as the "release events" studied by McEwan and McCarthy demonstrate.

What emerges from this synthesis is a new periodization of Kentucky's early ecological history. Previous scholarship has tended to argue that the arrival of Europeans during the eighteenth century was the sole cause of the region's major environmental changes.[117] Incorporating McEwan and McCarthy's recent findings with archeological and historical evidence, however, reveals a three-stage process of repeated transformations. Significantly, each transformation stemmed from a combination of human and ecological factors.

Vegetation and animal populations during the Fort Ancient period were influenced by the native culture's system of agricultural production and hunting. The

[117] Aron did include a brief account of the native depopulation of Kentucky, linking the development to Iroquois incursions into the Ohio Valley in search of hunting and trapping grounds during the seventeenth century, but did not address the environmental consequences of these and earlier native developments. Aron, 7. Friend also included a discussion of the pre-European human history in the Bluegrass, particularly in "The Indians' Frontiers" but did not pursue an environmental focus in his analysis.

system created a degree of openness in the landscape as rotating fields left relatively vacant patches behind. Higher rates of disease that came with increased trade with Europeans during the sixteenth and seventeenth centuries caused a decline in the Fort Ancient culture and reduced their impacts on the ecology of the region, as the land was increasingly utilized solely as a hunting ground. The resulting changes in the landscape included a greater degree of forest cover, and the reduced rates of growth seen in tree ring samples such as the Bur oak studied by McEwan and McCarthy. Some open spaces remained, however, in part because of the browsing of large herbivores like the bison and elk which stunted the regrowth of a dense forest. The decline in native hunting removed a population pressure on large animals, which likely allowed their numbers to expand. Early settlers eagerly commented on the uniqueness and suitability for agriculture of these savanna-like patches of forest. American settlement beginning in the 1770s touched off new transformations as the pioneers created an "agroecosystem" suited to their needs.

Hunting, Exploring & Promoting the Bluegrass

Despite the great agricultural potential apparent in the environment, the earliest white hunters and settlers were drawn to the region by the rich indigenous wildlife. The density of game populations likely exceeded those east of the mountains by a factor of twenty, and the experience seemed to stagger even the most seasoned Long Hunter.[118] Daniel Boone exclaimed that on his first trip into Kentucky in 1769, "The buffaloes were

[118] Craig Thompson Friend. *Kentucke's Frontiers*. (Bloomington & Indianapolis: Indiana University Press, 2010), 41.

more frequent than I have ever seen cattle in the settlements, browzing on leaves of cane, or cropping the herbage of those extensive plains, fearless because ignorant of the violence of man" and that he often "saw hundreds in a drove, and the numbers about the salt springs were amazing."[119] Joice Craig Falconer, who moved to Fayette County in 1779, recalled herds of "perhaps a thousand in number" and that the "woods roared with their trampling, almost as bad as thunder."[120] Other species, such as elk and deer, also attracted the Long Hunters and later settlers. Turkey was another favored game animal; as one pioneer declared, Kentucky was "the greatest country for turkey I ever saw."[121] Rather than resulting from a complete absence of human influence, as Anglo American hunters and settlers speculated, the large game populations existing in the 1770s were the product of the region's unique environmental history with its complex interaction of factors, as discussed in the previous section.

Most early accounts from the area did not comment on small wildlife, but promoter John Filson briefly noted a sampling of these diverse species. He wrote that reptiles were not common, snakes were not numerous, and the only bees were those introduced by European settlers.[122] Birds included "pheasants and partridges," which provided variation on the usual game fowl, turkey, as well as "the ivory-billed woodcock," the "great owl" and the beautiful "parroquet."[123] The only parrot to grace the Bluegrass,

[119] Filson, 49.
[120] Joice Craig Falconer interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*.
[121] William Clinkenbeard interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*.
[122] Filson, 26.
[123] Ibid., 25-26.

the "Carolina parakeet" brightened people's day with its colorful plumage.[124] A settler recalled "a great many" when he first arrived, that they "lived on cuckleburrs" and "flew in large gangs," but noted their rapid decline.[125] The now-extinct passenger pigeon, one of the most numerous animals in early America, traveled through the Inner Bluegrass region in prodigious numbers. Ornithologist Alexander Wilson, who visited in the first decade of the nineteenth century, estimated one group stretched at least one mile across with a density of three birds per square yard and flew at approximately one mile per minute. In the four hours that it took for the flock to pass Wilson, approximately 2.2 billion pigeons flew overhead.[126]

Rather than provide listeners with long lists of species, however, most returning hunters preferred to spread tales of the beauty and agricultural potential of the land they discovered. Based on early, word-of-mouth rumors that started on the lips of hunters, would-be settlers might make a trip to scout for themselves before passing final judgment on the landscape. Robert McAfee, for example was tempted to explore what eventually became the Bluegrass in 1773 "by the report of some hunters and Indians that there was a rich and delightful tract of country to the west, on the waters of the Ohio."[127] Eventually McAfee and his brothers lived and raised a crop of corn at Boonesborough before settling

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[124] Stanley E. Harris, "The Carolina Parakeet Vanishes: Extinction of the Ohio Valley's Only Parrot," *Ohio Valley History* Spring 2013, 3-21.
[125] William Clinkenbeard interview, *DC.*
[126] Alexander Wilson, *American Ornithology* (London: Whitaker and Co.; Edinburgh: Stirling and Kenney, 1828), 2:201-203.
[127] John Dabney Shane copy of the Record Book of New Providence Church, Draper Manuscripts 14 CC 102 quoted in Elizabeth A. Perkins, *Border Life: Experience and Memory in the Revolutionary Ohio Valley* Kindle Edition, (1998): Kindle Locations 662-667, citation from chapter 2, note 33, Kindle Location 2601.

out in central Kentucky.[128] Based on the accounts of hunters like McAfee, land speculators and settlers alike understood the quality of the Bluegrass Region by 1775 when they began to arrive in significant numbers.[129] Daniel Boone's glowing description of "the beautiful level of Kentucky" made him one of the most important promoters of the region.[130] He extolled the quality and ease of hunting in a land where "Nature was…a series of wonders, and a fund of delight," and where "she displayed her ingenuity and industry in a variety of flowers and fruits, beautifully coloured, elegantly shaped, and charmingly flavoured …with innumerable animals presenting themselves perpetually to our view."[131] In 1771 Boone declared Kentucky "a second paradise" and determined to risk his "life and fortune" on its future by relocating his family there.[132]

Boone's descriptions found a wider audience with their inclusion in John Filson's *The Discovery, Settlement and Present State of Kentucky* (1784). Boone added a first-person adventure story and a hero's endorsement to Filson's account. Filson conceived his project as filling a gap in public knowledge and assured his reader he wrote not "from

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[128] Elizabeth A. Perkins. *Border Life: Experience and Memory in the Revolutionary Ohio Valley* (Kindle Locations 662-667). Kindle Edition. The process of "settling out" will be discussed in the section on frontier stations.
[129] Kim A. McBride and W. Stephen McBride, "From Colonization to the Twentieth Century" in *Kentucky Archaeology* ed. R. Berry Lewis (Lexington: University Press of Kentucky, 1996), 187. Long Hunters often supplemented their income from the sale of skins by hiring out to land companies to report on land conditions.
[130] Filson, 49. Pilot Knob, today a state nature preserve in Powell County, "is considered to be the prominence upon which Daniel Boone first stood and looked out over the Bluegrass region of Kentucky." Quote from Joyce Bender "Pilot Knob State Nature Preserve," http://naturepreserves.ky.gov/naturepreserves/Pages/pilotknob.aspx (accessed November 15, 2014).
[131] Filson, 49-50.
[132] Ibid., 54.

lucrative motives, but solely to inform the world of the happy climate, and plentiful soil of this favored region" and vowed to "avoid every species of falsehood."[133] He did well to open his narrative by refuting the charge that his portrayal reflected a promoter's fantasy rather than a settler's reality, since many of his descriptions stretched the credulity of skeptical readers. Indeed, Filson held back from his audience the pertinent fact that he had recently invested in land warrants and claims amounting to more than twelve thousand acres in Kentucky. Since his literary talents exceeded his pioneering skills, Filson hoped to make his investment pay off by promoting the settlement of the region, which would drive up land values.[134] Filson's omission, however, does not invalidate the evidence he provided or distinguish him from the vast majority of other Kentucky settlers who also hoped to materially benefit from the land.

Filson opened his history with a group of white explorers who reported "their discovery of the best track of land in North America, and probably in the world" while reconnoitering around the Kentucky River in 1754.[135] Filson supported this statement with a detailed discussion of the region's current status and future potential. He believed the quality of soil exceeded that of the eastern states and argued it produced crops of corn, wheat and rye in quantities that displayed its "amazing fertility." Beyond these staples of the Anglo-American diet, which included a notable dependence on corn, initially a native crop, Filson promised that the soil would produce an abundance of "flax

[133] Ibid., 5-6.
[134] John Mack Faragher, *Daniel Boone: The Life and Legend of an American Pioneer* (Henry Holt and Co., 1993), Kindle Locations 108-112, Kindle.
[135] Filson, 7-8.

and hemp, turnips, potatoes…cotton" or virtually any other crop a pioneer might desire.[136] According to the promotional literature, even "without water or manure" any settler could have a good garden or pasture.[137]

Livestock, meanwhile, would thrive and multiply if simply left to their own devises among the landscape's abundance. In *A Topographical Description of the Western Territory of North America* (1793) Gilbert Imlay, like Filson, might have set off warning bells amongst more skeptical would-be settlers with his elaborate praise for the region as when he described the land around the new town of Lexington as "the finest and most luxuriant country, perhaps, on earth."[138] The enthusiastic description Imlay provided of the native bamboo illustrates the seeming hyperbole. He reported the cane comprised a prominent part of the landscape, describing the plant as:

> a reed which grows to the height frequently of fifteen or sixteen feet, but more generally about ten or twelve feet, and is in thickness from the side of a goose quill, to that of two inches diameter…When it is slender, it never grows higher than from four to seven feet; it shoots up in one summer, but produces no leaves until the following year. It is an ever-green, and is, perhaps, the most nourishing food for cattle upon earth. No other milk or butter has such flavor and richness as that which is produced from cows which feed upon cane. Horses which feed on it work nearly as well as if they were fed upon corn. [139]

Accounts of such a miraculous plant, a grass capable of growing seven or more feet in a single year and enriching livestock without any effort on the part of the agriculturalist, might seem too good to be true coming from the pen of a self-interested promoter, but

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[136] Ibid., 24.
[137] Ibid., 24-25.
[138] Gilbert Imlay, *A Topographical Description of the Western Territory of North America, &c.* (Dublin: William Jones, 1793), 61.
[139] Ibid., 59.

actual settlers and first-hand experience also backed up the case. Sarah Graham's recollection almost mirrored Imlay's. Later in life, she wistfully remembered cattle "gave the richest milk when we came, fed on the cane; more than when now fed on the Bluegrass pasture."[140] Farmers like John Hedge of Bourbon County recalled "the ease of raising cattle" on wild cane in the years after settlement.[141] Promoters also assured readers that even in areas without cane, other natural grasses and grains meant herds of cattle and hogs would still flourish with a minimum of human management.[142] Rather than take either word-of-mouth stories or promotional tracts at face value, many settlers explored the countryside for themselves and made their decisions based on all of the information available to them, as was the case for the McAfee brothers discussed above.

Conflict for the Bluegrass Frontier

In a trickle that became a torrent, Anglo Americans during the 1770s and 1780s decided their prospects were brighter in Kentucky than in older settled regions. As the torrent threatened to crest as a tidal wave with the power to transform the land itself, natives and settlers battled for control over the Bluegrass region. Previously, in what Stephen Aron termed "the meeting of the hunters," men from both cultures, the native and the colonial, utilized the territory simultaneously in pursuit of similar, though not identical, culturally defined masculine goals.[143] The 1769 meeting between Daniel Boone and a group of natives under the leadership of "Captain Will" Emery, most often

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[140] Lucien Beckner, ed., "Rev. John Dabney Shane's Interview with Mrs. Sarah Graham," in *Filson Club Historical Quarterly* vol. 9, (1935): 228.
[141] John Hedge interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*.
[142] Filson, 23.
[143] Aron, 5-28.

referenced as a member of the Shawnee, but also occasionally as Cherokee, stands out in accounts of the brief existence of a "middle ground" between the two cultures on the hunting grounds of Kentucky.[144] Boone and his companion, John Stewart, had split off from a larger group of hunters who had been led to the region by John Findley, a veteran of the Indian trade. After marveling at the fertile plain stretching the Kentucky River from a knob in the foothills of the mountains, Boone and Stewart hunted their way down to the "great forest, on which stood myriads of trees, some gay with blossoms, others rich with fruits" while enjoying considerable success among the numerous game animals.[145] These delights, and a dense stand of cane, blinded Boone and Stewart to the presence of native hunters until it was too late and the two men were captured. Led by Captain Will, who communicated with Boone through a pidgin English that revealed a degree of cultural mixing, the Shawnee hunters seized the skins collected by the colonials over the course of the long hunt, along with many of their supplies. Captain Will and his men did not, however, kill the interlopers or strip them of the means to survive. Instead, they warned the hunters to return east of the mountains and not to return, gave them an inferior gun and ammunition sufficient to keep them alive on their journey, but not enough for continued commercial hunting. The Shawnee response indicated a firm rejection of the *type* of hunting practiced by the Long Hunters, for a distant market that

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[144] Aron, 5-6, 11, 18-20, 213 note 5. The term "middle ground" is borrowed from Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815*, 20th anniversary ed. (New York: Cambridge University Press, 2011). For more on the meeting between Boone and Emery see Faragher, Kindle location 1390-1429. Also, Filson 50-51.

[145] Filson, 49.

valued only the skins and necessitated leaving the overwhelming majority of meat to rot. It was not, however, the type of response settlers would receive in later years, once their project of permanent settlement became clear and the terms of the conflict intensified. The show of force and cautionary words on the part of Captain Will and his hunters proved insufficient to stem the tide of explorers and settlers. Even the frightening moments and difficult outcome to this particular hunt only whetted the appetite of men like Boone to tap into the opportunities offered by such a rich landscape.

Overlooking warnings like the one Captain Will gave to Boone, colonists increasingly eyed the region as more than a hunting ground, and imagined it as a site for permanent, agricultural settlements. This next step, initially faltering as it was with the failure of the first attempt at permanent settlement in 1774, betrayed the stakes of the conflict to many natives, though some continued to seek some sort of accommodation. The settlement project necessitated a different relationship with the landscape than that pursued by the Long Hunters. Instead of briefly traveling through to skim off some of the wealth naturally produced by the region, in the form of pelts, by 1775 men like Daniel Boone began to seek and promote a deeper level of resource exploitation through permanent occupation. In the long run, the occupiers aimed to recreate the culture of their birth, albeit with some modifications designed to suit the environmental circumstances and maximize the benefits of possessing the land. The social demands of permanent settlement further strengthened the resolve of male settlers as more women and children immigrated. Since families sheltered behind fortified enclosures offered static targets to hostile natives, male settlers were compelled to a more resolute defense.

The permanent settlements and presence of families were the inevitable outgrowths of landownership based on an agricultural relationship with the environment. Hence, the conflict became irreversible as the depth of contradictions between the future landscapes imagined by settlers and natives became apparent. A brutal border war arose from the fact that the two cultures' view of how the landscape should be structured proved mutually exclusive.

The belief that the land itself could, and should, be commodified and possessed by individuals acted as a dividing line between most natives and settlers. Kentucky pioneer Daniel Trabue recalled a conversation he had with an elderly native man about:

> the Despute between the Indeans and white people. This chief said to me, 'You big Captain. Me big Capt. too. What do you want to take Indian land from them for?' Answer: we Did not want to take their land. Who told them we did?
> He said the british told thim so and the britesh told them they ought to fight for their land and kill the whites.
> I told him we alwaise bought their land and paid them for it and if any body had Ever been in the fought [fault] it was the british king. It was them that first made a settlement in America on their land—if it was their land. But said I, 'How come it to be your land? Who maid it and who give it to you?'
> He laughed and said the britesh told them it was their land and the Great spirret had made it for them.
> I asked him if he beleaved that storry.
> He told me he would now tell me how he thought it was. He said he beleaved the Great Spirret made all the people—the Indean and the white people. He made all the land and it was the Great Spirret's land. And it was rong for the Indian or white man to say it was his land. This was a lie. 'Now,' said he, 'if Indian make house it is Indean's house. If he make corn field it is his, but the land is the Great Sperrit's. But,' said he, 'the white man he marke of[f] land in the woods and say it is his land.' Said he, 'This is a lie. It is not his land. It is the Great Sperrit's land.[146]

[146] Daniel Trabue, *Westward into Kentucky: The Narrative of Daniel Trabue* ed. Chester Raymond Young (Lexington: University Press of Kentucky, 1981), 143-144.

In Trabue's telling of the event, the elderly man eventually relented and admitted he was anxious for peace with the powerful Americans and implicitly accepted their right to assert ownership over at least some portions of the land. Many natives, however, explicitly rejected any accommodation and resisted the commodification of their hunting grounds at the cost of their lives. Opposing the anti-accomodationist Indian warriors was a group of pioneer settlers, more numerous and no less committed to their ideology of landownership, also willing to risk the ultimate price to impose, and profit from, their worldview.

Native groups that used central Kentucky as an essential hunting ground during the period of American exploration and promotion well understood the threat early-arriving settlers posed: they sought to fundamentally transform the regional environment. Simon Girty, a "renegado" white man who had joined the Shawnee and risen to a position of military leadership, touched on the theme in his address to gathered native warriors during the 1782 campaign that culminated in the Battle of Blue Licks:

> Brothers, the long knives have overrun your country and usurped your hunting grounds. They have destroyed the cane, trodden down the clover, killed the deer and the buffalo, the bear and the raccoon. The beaver has been chased from his dam and forced to leave the country…They are building cabbins and making roads on the very ground of the Indian camp and war-path—They are planting fruit trees and ploughing the lands where not long since were the cane break and clover field. Was there a voice in the trees of the forest, or articulate sounds in the gurgling waters, every part of this country would call on you to chase away these ruthless invaders, who are laying in waste. Unless you rise in the majesty of your might, and exterminate their whole race, you may bid adieu to the hunting ground of your fathers.[147]

[147] Thomas D. Clark, *A History of Kentucky* (New York: Prentice-Hall, 1937), 34; John Bradford, *The Voice of the Frontier: John Bradford's Notes on Kentucky*, ed. Thomas D. Clark (Lexington: University Press of Kentucky, 1993), 49. For more on Simon Girty see Craig Thompson Friend, *Kentucke's Frontiers*.

Despite the native victory in this battle, Girty's prediction soon proved accurate.

The competing ideas of what constituted proper land use, or agroecological ideologies, at the root of the conflict were not the only environmental factors in the struggle for central Kentucky. Ecology affected motivations, tactics and outcomes. Aspects of the evolving landscape, from open forests to fields of corn, figured prominently in shaping the course of the conflict, influencing events as small as individual skirmishes and as large as the siege of Boonesborough. The sporadic fighting between settlers and natives in what became the Bluegrass lasted from 1774 through the early 1790s and partially overlapped with the American Revolution. The brutal clashes that made up the larger conflict often targeted aspects of the opponent's agroecosystem. The conflicting environmental ideologies embraced by each side created physical manifestations on the land, which their enemies subsequently targeted as clashes intensified. Both sides sought the upper hand in the border war by undermining their enemy's vital relationship with the land itself.

Native hunters relished the opportunity to turn the tables on settlers they viewed as poachers. As William Clinkenbeard recalled arriving back from a hunt at Strode's Station in March of 1781 to find "the Indians had been at the Station and killed all the sheep." They took special pains to drive the settlers' cattle together within sight, but out of shot, of the station and slaughtered them while mockingly calling "to the men in the Station to come and get their cattle. The Indians would kill them all…ha! ha! ha!"[148] By

[148] William Clinkenbeard interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*.

killing livestock in such a dramatic fashion, natives illustrated a weak point in the settler agroecosystem: its reliance on domesticated animal species to transform natural photosynthetic processes into a culturally approved source of protein, dairy, and textiles. Such attacks, particularly with regards to survival, might be overcome by expanded use of game animals. Over the long term, however, this only further reduced wildlife populations and thereby increased setter reliance on domesticated animals, thus reinforcing the cycle.

As Kentuckians increasingly sought to take the fight across the Ohio River, they embraced the strategy of attacking the native agroecosystem. Many of the offensives led by George Rogers Clark, for example, sought to destroy agricultural resources as the most efficient approach to the war. His 1780 raid against the native towns of Chillicothe and Piqua resulted in "more than 500 acres of corn…destroyed, as well as every species of vegetables cultivated for the purpose of food."[149] A different settler reported conflicting numbers, but the same overall outcome, writing that "Col Clarke" destroyed "eight Hundred Acres of fine Corn & great Quantities of Beans, Peas, Potatoes" in "the severest Blow" ever dealt by the settlers on the offensive across the Ohio River.[150] He relished the fact that "the Loss of their Provisions must nearly ruin them."[151] Provoking a subsistence crisis forced native hunters to spend their time and energy providing calories to feed hungry family members rather than hunt settlers south of the Ohio.

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[149] John Bradford, *The Voice on the Frontier: John Bradford's Notes on Kentucky,* ed. Thomas D. Clark (Lexington: University Press of Kentucky, 1993), 41.
[150] John May to Samuel Beall, August 22, 1780, Beall-Booth Family Papers, The Filson Historical Society, Louisville, Ky.
[151] Ibid.

The relative calm in central Kentucky provided breathing space for newly arriving migrants to carve out small niches in the landscape and begin the long process of transformation. It was in these types of ebbs and flows that the decades long struggle for control over the landscape played out. No individual space in the transplanted agroecosystem could be considered completely secure, but taken as a whole, the settler influence on the landscape continued to expand.

Natives identified the settlers' cultivation practices as a similar weak spot to expose in the nascent agroecosystem. As Craig Thompson Friend pointed out, native "warriors knew that just their presence psychologically immobilized settlers, impeding the growing and harvesting of crops, milking of cows, and retrieval of spring waters."[152] Settlers recalled instances in which their enemies lurked in the edges of cornfields near their stations, waiting to ambush the first farmer to come check the crop.[153] These types of tactics could transform a comforting and familiar part of the landscape, a local agricultural site, into a place of uncertainty and fear.

On the intimate scale of personal combat between small groups, environmental factors often helped determine the outcome. It might come down to an individuals' knowledge and use of landscape features to seize the element of surprise, as when Captain Will and his party sprang from the cover of a dense cane brake to capture Daniel Boone and John Stewart. Conversely, misreading the landscape might carry heavy risk, as Francis Downing discovered when he and his companions mistakenly surmised from the

[152] Friend, 149.
[153] William Clinkenbeard interview, *DC*.

presence of "several hundred buffaloes, elks and deer" that a salt lick was safe from native hunters. The settlers were promptly ambushed. The small party narrowly escaped, hiding in the woods behind a downed log.[154]

In the chaotic borderland, outside of settlers' isolated stations where much of the conflict occurred, strategic inter-species alliances might prove the difference between life and death. This description applies to the human relationship with horses, which might give an individual a decisive advantage in speed and endurance over their counterpart. Both sides clearly recognized the tremendous utility of horses and sought to seize those belonging to their enemies, while protecting their own.[155] The costs to people of maintaining these mutualistic relationships with domesticated horses were relatively small compared to the advantages they provided, consisting mainly of providing access to food and water, maintaining equine health in order utilize their services, and protecting the domesticated species from capture. The environment presented some challenges, however, as many horses found the nettles and swarming flies of the region so maddening that they put their riders' lives in danger in their attempts to free themselves from the torment.[156] The association of horses with Kentucky began with this practical, utilitarian relationship forged in the heat of border war.

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[154] Bradford, 84.

[155] Instances of horse stealing by both sides abound. See for example Jesse Grady interview, *DC, Kentucky Gazette*, September 8, 1787, March 10, 1792 and Thomas Perkins Letters*, The Filson Club Historical Quarterly,* 146.

[156] William Fleming, "Journal of Colonel William Fleming, 1779-1780" in *Travels in the American Colonies*, ed. Newton D. Mereness, (New York: The Macmillian Company, 1916), accessed via Library of Congress online, 643 and 650. In the first case, the nettles drove Fleming's horses far from his dwelling in search of suitable grazing, forcing him on

Perhaps less obvious than the utility of horses were the many roles dogs played in the struggle for control over the region. Hunters on both sides routinely used canines when tracking and killing game and easily adapted those techniques in pursuit of human prey. William Clinkenbeard, for instance, recalled an episode in which Peter Harper's "little dog" chased down "the Indian that got away" during a chance encounter with a native hunting party and jumped up to strike him "three or four times" and "would have taken the Indian" had anyone "been near to give him encouragement."[157] In other circumstances, settlers used their dogs to track down specific individuals as Sarah Graham described in her memory of the rescue of Mrs. Kirkham and her five children after being captured at their home near Danville. With the native raiding party slowed by the children, the settlers' dogs were able to quickly guide a group of men to the captives, who were retrieved with no casualties.[158] However, the fact that the dogs served multiple purposes could reduce their effectiveness at particular tasks as when "Sconce's dogs were put on the track" of a fugitive native hunter who had slipped his captivity, only to be fooled when the man "crossed a bear's trail," which "turned the dogs out" and allowed his escape.[159]

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a lengthy and dangerous retrieval journey. In the second, his horse plunged into the Kentucky River in its attempt to get the stinging flies out of its eyes.

[157] William Clinkenbeard interview, *DC*.

[158] "Reverend John Dabney Shane's Interview with Mrs. Sarah Graham of Bath County" ed. Lucien Beckner, *Filson Club History Quarterly* 9 no. 3 (1935), 230-231.

[159] William Clinkenbeard interview, *DC*.

Native hunters used their canine hunting companions in a similar fashion.[160] A 1780 episode involving Daniel Boone illustrates the commonalities. When returning to camp from a bear hunt, Boone heard gunshots and an unfamiliar "yelp of a small dog, coming towards him." From these two facts, Boone determined native hunters had killed his companion and sent the dog to track him. Boone fled, hoping to hide in the dense canebrake, but could not elude the sharp senses of his pursuer. Ultimately, Boone killed the dog in order to escape and heard a "horrid yell…when the Indians came to the dead dog" as he snuck away.[161] The emotional pain suggested by the "horrid yell" Boone remembered indicates another shared characteristic in the two cultures' relationships with canines: they often transcended mere utility. Boone himself often turned to dogs for companionship and psychological support during his long hunts. According to a descendent, on Boone's longest sojourn in Kentucky he "'had three dogs that kept his camp while he was hunting, and at night he would often lie by his fire and sing every song he could think of, while the dogs would sit round him, and give as much attention as if they understood every word he was saying.'"[162] In the often-lonely frontier environment, dogs could serve an important emotional role in addition to their practical contributions in the mutualistic inter-species relationship.[163]

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[160] Dogs pre-date European arrival in the Americas. Schwartz, Marion. *A History of Dogs in the Early Americas*. New Haven, Conn: Yale University Press, 1997.
[161] Bradford, 48.
[162] *Illinois Magazine* 2 (June 1832): 401, quoted in Faragher, Kindle locations 1488-1490.
[163] This surprisingly modern dimension of the human-dog relationship is all the more striking for the fact that it seems to have transcended cultural divisions that otherwise separated natives from settlers.

In the heat of combat, dogs might protect their humans at the expense of their own life. This was the case for the "little bulldog" that leapt to the defense of the fallen "Twitty" when a group of native hunters attacked the early group of settlers in 1775 including Felix Walker and Daniel Boone discussed at the beginning of the chapter.[164] While the dog's instinctual sacrifice did not, ultimately, save Twitty's life, it did prevent his being scalped. In a different episode, Jonathan Jennings lost his scalp, but his life was saved thanks to the help of his dog. When out hunting, a group of "Indians met with Jennings, knocked him down with their tomahawk, and scalped him, without either breaking the skull or killing him."[165] Left for dead, Jennings' prospects appeared dim, but "[h]is dog…licked the place 'till he recovered, and got up, and went in" to the relative safety of the settlements.[166] Jennings literally could not have known of the antibacterial properties of canine saliva, yet nonetheless benefited from them. These examples illustrate the type of inter-species solidarity that settlers relied on in their attempt to wrest control of the region away from native hunters.

Dogs also played important roles in the defensive system devised by settlers. Daniel Trabue recalled that when out hunting in cold weather, settlers "made large fires and our Dogs was all the sentry we had."[167] Men might then be disturbed by their sentries' uneasy reactions to the nocturnal activities of their evolutionary cousins, the wolves, but this was a small price to pay for the relative benefits of such a mobile security system. In

[164] Faragher, Kindle location (2016)
[165] Jesse Grady interview, *DC*.
[166] Ibid.
[167] Trabue, 65.

the context of more permanent settlement locations, pioneers incorporated dogs into their everyday routines. For example, William Moseby remembered that each morning when the station gates were first opened, dogs were the first through in order to sniff out any potential threats.[168] Jane Stevenson, who arrived with her family at McConnell's Station a few miles west of Lexington in 1779, recalled that her "Daddy stood sentry while we milked," and when native hunters were spotted, he would fire a warning shot to have men from the settlement "set their dogs on them."[169] Thus, settlers utilized their dogs to help them defend everything from their temporary hunting camps to their vital livestock and even their children.

Given the seriousness of the tasks assigned to dogs in the context of the struggle for control over central Kentucky, settlers unsurprisingly went to extreme lengths in their attempts to instill a hatred for their enemies in their canine allies. As Sarah Graham recalled "at Harrodsburgh they fed three Indians to the dogs to make them fierce. They quarreled and bristled up, ready for Indians as they ate."[170] Whether such tactics succeeded in shaping dogs with hostility to all natives, or only those presented to them in such a context, the very brutality of such episodes served the purpose of transforming settlers' dogs into a psychological weapon in the conflict. These types of events acted as subtext when Kentucky's military leaders issued threats like that of George Rogers Clark in 1777, that if native warriors continued to resist and choose war with the settlers south

[168] Perkins, *Border Life*, Kindle locations 1486-1490.
[169] Jane Stevenson interview, vol. 11, box 83, Series CC: "Kentucky MSS," *Draper MSS*.
[170] Lucien Beckner, ed., "Rev. John Dabney Shane's Interview with Mrs. Sarah Graham," in *Filson Club Historical Quarterly* vol. 9, 232.

of the Ohio, they "may expect, in four moons, to see your women and children given to the dogs to eat."[171] No idle threat, some settlers used their dogs to do their dirty work. No doubt in response to such brutality, natives developed the tendency to kill settler dogs when the opportunity presented itself, as William Clinkenbeard recalled.[172]

In the most desperate of circumstances, settlers were not above sacrificing their own dogs if it helped them survive. Sometimes the uncertain frontier environment, particularly during inclement weather, left settlers stranded with little option but to consume their canine companions or risk starvation. This was the case when early snows caught John Masterson's brother-in-law and his party during the Hard Winter of 1779-1780, as supplies dwindled in their makeshift camp, the group eventually killed and ate a dog along for the journey.[173] By utilizing dogs as a food of last resort, settlers survived situations that might have killed them otherwise.

Of course, reliance on non-human species, no matter how skilled or gifted, carries certain risks. This proved to be the case of the relationship between dogs and men on the Kentucky frontier as the life and death of Peter Harper illustrates. Settlers recalled that his dogs "always" accompanied him.[174] He utilized his dogs in typical frontier fashion, tracking both game and human enemies. One day "Harper came along riding, with his gun on his shoulder, hunting his dogs. They, two dogs, had gone after a bear, and he had lost them, and allowed they were down about the Beaver Pond, two miles…Harper told us to

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[171] Clark quoted in Friend, 83, from Ross F. Lockridge, *George Rogers Clark, Pioneer Hero of the Old Northwest* (Yonkers-on-the-Hudson, N.Y.: World Wood, 1927), 87-88.
[172] William Clinkenbeard interview, *DC*.
[173] Eslinger, 35.
[174] Clinkenbeard interview, *DC*.

build up a fire, and he would be back that night and camp with us," but he was never seen again.[175] Following his dogs, a strategy Harper followed countless times in life, ultimately led him to his death in the dangerous frontier environment. On the whole, however, in spite of such events, dogs acted as valuable allies to settlers engaged in the dual struggles of carving an existence out of the difficult landscape and asserting their right to possess it.

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American Settlement of the Bluegrass

Despite the on-going struggle with native warriors for possession of the land, the stories of a "second paradise" just beyond the Cumberland Gap attracted droves of settlers. In fact, the arrival of migrants directly influenced the course of the conflict, providing vital manpower as the contest intensified and culminated. The emigrant population exploded from a scant 300 people clustered around four fortified stations in 1775 to "upwards of thirty thousand souls" a decade later.[176] An estimated 12,000 settlers moved to Kentucky in 1784 alone.[177] As one firsthand observer quipped, "it would be less difficult to deflect the course of a river than to stop the continuous flow of this migration" into Kentucky.[178] Many of the pioneers shared similar goals of economic advancement and pinned their hopes on the rich landscape. However, the scope of one's ambition

[175] Lucien Beckner, ed., "John D. Shane's Interview with Benjamin Allen, Clark County" in *Filson Club History Quarterly*, 5, no. 2 (1931): 71.
[176] Wharton, 41 and Filson, 28.
[177] Imlay, 44.
[178] Bodo Otto to Charles Gravier, March 11, 1786, English translation of French original, SC 288 Kentucky Historical Society, Frankfort, KY.

might vary widely depending on where they fell on a spectrum ranging from absentee speculator to fulltime occupant of Bluegrass land. The "land adventurers" scrambling for fertile tracts in the region frequently blurred the distinction between "speculator" and "settler."[179] Many individuals embodied both roles and both relationships with the land, without apparent contradiction. Some also acted as proxies for non-resident speculators.

John May traveled to Kentucky in 1780 and quickly adopted each of these roles, though he focused on the speculative side of the venture as his correspondence with his partner Samuel Beall in Williamsburg, Virginia, makes clear.[180] After his arrival, May quickly became "convinced that such Land as may now be purchased for less than two Pounds on credit will sell for three or four Times that sum before we should be obliged to pay for it."[181] He based his assurance on the fact that the land exceeded his "Expectations for Goodness of Quality" and was destined to rise in value as navigation down the Ohio and Mississippi Rivers became more convenient.[182] May viewed the opening of these waterways to the trade of future Kentuckians as inevitable, no matter the outcome of the

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[179] John May to Samuel Beall, May 28, 1780, Beall-Booth Family Papers, The Filson Historical Society, Louisville, Ky.

[180] Though the majority of May's exploration and speculation occurred nearer to what became Louisville than to Lexington, the landscape shared many characteristics stemming from the broad similarities between the Inner and Outer Bluegrass ecoregions. See A.J. Woods, J.M. Omernik, W.H. Martin, G.J. Pond, W.M. Andrews, S.M. Call, J.A. Comstock, and D.D. Taylor, *Ecoregions of Kentucky: color poster with map, descriptive text, summary tables, and photographs* (Reston, VA., U.S. Geological Survey, 2002) <http://www.epa.gov/wed/pages/ecoregions/ky_eco.htm#Ecoregions%20denote> (accessed November 14, 2014).

[181] John May to Samuel Beall, April 29, 1780.

[182] John May to Samuel Beall, April 15, 1780.

American Revolution that was raging at the same time he wrote to Beall outlining his land schemes.

In a similar fashion, May fervently believed that the process of commodifying the landscape would continue no matter the outcome of the relatively minor disagreements manifesting themselves in the clash between Americans and Britons, or patriots and loyalists. Amidst the chaos of speculating in lands of uncertain title during a war, May sought to reassure Beall of the inevitability of the commodification of Kentucky land, writing that "I am persuaded we have it in our Power to make our own Terms with Great Britain, and that every Act of Government here, will be confirmed, let the Dispute terminate as it will."[183] He then doubled down on his argument, attempting to prod Beall to greater investment by promising greater reward, giving his "Opinion that we might very safely go on purchasing Warrants: If I had 100000 at this Time I could, in six Weeks Time, locate them on Land that would be worth half a Million" pounds.[184]

May seems to have come down with a sort of mania for land in Kentucky. His repeated references to amassing 100,000 acres of land in hopes of selling them at a tremendous profit worried Samuel Beall, May's partner. [185] Beall provided much of the credit used in accumulating land warrants. He grew concerned when May exceeded the bounds of their prior agreement. Beall wrote to May cautioning him against drawing any further upon Beall's accounts and to "stop purchasing" immediately. Far from the

[183] John May to Samuel Beall, May 28, 1780.
[184] Ibid.
[185] May referenced this amount of land, and various levels of profit in correspondence dated May 14, May 18, May 28, 1780.

epicenter of the Kentucky land frenzy, Beall seemed exasperated by his partner's ever-expanding appetite for acreage; "I cannot conceive what you want with so much Land, If you will be content…on securing the Land already secured by purchase and the Titles are confirmed to us, it is all I can wish, and on Reflection you will agree that you have more Land than one Man should Possess."[186] When May continued to purchase land warrants, Beall wrote again of his "determined resolution not to risque one shilling more in Land over the mountain" and his "wish to sell Land" rather than buy more.[187]

Not every white male settler became gripped with an insatiable hunger for land speculation as May did, but many displayed a similar zeal to one degree or another.[188] A pioneer hunkered down in Harrodsburg during the Hard Winter of 1780 wrote that he was "grately pleasd with this Furtele Countrey & am deturmind to settle it Immediately."[189] The author, whose name has been lost, quickly transitioned from his excitement at the prospect of personal settlement to calculations of "the grate value" his "2800 Acres of land" that he was "Confident will be worth more Money than any lands in this Countrey."[190] Men of such mixed motivations, determined to both settle a portion of the landscape for themselves and profit financially from other people's settlement, acquired a tenacity of purpose that strengthened the overall project of settlement. After noting his desire that his efforts would spare his children "hard ships" of acquiring a

[186] Samuel Beall to John May, June 14, 1780.
[187] Samuel Beall to John May, November 11, 1780.
[188] For a detailed discussion see Aron, "Land Hunting," in *How The West Was Lost*, pg. 58-81.
[189] Letter from Harrodsburg, January 30, 1780, Harrodsburg, KY, The Filson Historical Society, Louisville, Ky.
[190] Ibid.

"Computant Fortune" on their own, the author resolved to "have more rich land or…cease to be."[191] We cannot conclusively determine the fate of the unknown author who made this vow, but his contemporary in speculation, John May, paid the ultimate price associated with commodifying land in Kentucky when Shawnee raiders across the Ohio River killed him in 1789.[192]

Large scale speculators like May performed an important role in the imposition of a new ideological regime on the land, allowing a re-imagining of the landscape as a commodity subject to private ownership. This new mental categorization of land in Kentucky did not depend on actual physical change on the ground. A future landscape, fully settled, agriculturally rich and engaged in extensive trade, existed in the minds of such men, and it was on *this* landscape, rather than the current dangerous, unsurveyed frontier environment, that they made their calculations of their holdings' future value. In order for such visions to come to pass, and for the paper commodification listed on warrants and in deed books to translate into actual possession and physical transformation of the land, speculators depended on the actions of thousands of men and women arriving in waves by the 1780s.

The settlers slowly converted Boone's "second paradise" into an agroecosystem geared toward maximizing the production of culturally favored species.[193] This process

[191] Letter from Harrodsburg, January 30, 1780.
[192] Friend, 149.
[193] Ellen Eslinger, "Farming on the Kentucky Frontier" *The Register of the Kentucky Historical Society* Vol. 107, No. 1, 2009, 3-32.

began on a modest scale when the pioneers planted their first crop of corn.[194] During the early years obvious changes were limited to the areas immediately adjacent to the defensive "stations" built to protect the settlers and their livestock from raiding natives.[195] While the need for stations initially served to limit the scope of landscape change in the region, they also ultimately acted as nurseries: protected spaces where transplants, human, animal and plant, might acclimate to the new environment before spreading across the countryside.

Spencer Records recalled his father's frustration at being unable to settle on the land he had purchased in Central Kentucky during the 1780s due to the on-going conflict and being forced instead to lease land near McConnell's Station.[196] The result of such clustering was to concentrate the immediate impacts of the newly arrived residents' agricultural practices in the most heavily settled parts of the region. Outside of Strode's Station, for example "[e]very fellow had a garden round the fort that wanted one. It was all in one field with no fencing between…One-fourth of an acre was allowed to each farm yard and staked off."[197] Also adjacent to the station was a 100-acre cornfield, which residents depended on for grain. Fencing was minimal and often ineffective. Separating the station from these cultivated portions of the local landscape was an open space,

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[194] One might persuasively argue the Fort Ancient culture created their own localized agroecosystems prior to its decline, the evidence of which still existed in the open patches of forests when Europeans arrived, but the system American settlers constructed far surpassed any previous modifications to the landscape.
[195] For more on "stations" see Nancy O'Malley, *Stockading Up': A Study of Pioneer Stations in the Inner Bluegrass Region of Kentucky*, Archaeological Report 127 (Frankfort: Kentucky Heritage Council, 1987).
[196] Spencer Records narrative, vol. 23, box 85, Series CC: "Kentucky MSS," *Draper MSS*.
[197] William Clinkenbeard interview, *DC*.

devoid of vegetation, or a "stamp," created by livestock that used the dusty space to escape the flies that plagued them.[198] The actions of the livestock also changed the local water courses; a spring that initially emerged in the creek by the station soon "had broken out higher up the creek" after "the bank had been trodden down" by the "tramping of cattle."[199] The local landscape modifications experienced in the neighborhood of Strode's Station typify a series of transformations that spread from each pioneer settlement.

Difficult conditions often prevailed inside the stations, as many pioneer accounts attest. The very vulnerability that necessitated their existence made frontier forts unpleasant places to reside. As Daniel Trabue recalled of his time in "Boonsburrough" in 1778, settlers in the isolated station "all ran out over Joyed to see strangers come to their town or Fort" and were "remarkable kind and hospitable to us with what they had," but Trabue judged "what they had" to indicate "hard times—no bred, no salt, no vegetables, no fruit of any kind, no Ardent spirts, indeed nothing but meet."[200] Rather than focusing on what pioneer stations lacked, the complaints of others fixated on the hazards and difficulties the settlements held in abundance. William Fleming recalled of the fort that grew into Harrodsburg: "The whole dirt and filth of the Fort, putrified flesh, dead dogs, horse, cow, hog excrements and human odour all wash into the spring which with the Ashes and sweepings of filthy Cabbins, the dirtiness of the People, steeping skins to dress and washing every sort of dirty rags and cloths in the spring makes the most filthy nauseous potation of the water imaginable and will certainly contribute to render the

[198] Ibid.
[199] Ibid.
[200] Trabue, 47.

inhabitants of this place sickly."[201] The dirty micro-landscape of the frontier station, no doubt contributed to settlers' desire to leave the defensive positions as soon as they judged the countryside safe from raids by native warriors.

As Gilbert Imlay related in his guide to settlers, in times of relative peace and "as the country gained strength, the stations began to break up…and their inhabitants to spread themselves" across the landscape, in a process residents termed "settling out."[202] Their dispersal acted to scatter the seeds of the agroecosystem across what became the Bluegrass. The move might require several attempts as the family of Sarah Graham discovered in 1781 when "the Indians beat them back" from their attempt to relocate and "settle out" on a homestead away from Fisher's Station.[203] Despite such setbacks and false starts, soon fields of corn growing in the shade of girdled and dying trees dotted the countryside; the seeds of the new agroecosystem briefly shared space with the decaying relics of the landscape it replaced. Farmers removed the remnants to maximize the photosynthetic potential of their crops as time and circumstances allowed. As a French visitor reported in 1786, settlers cleared "the small amount of bush…which…facilitates the work," yielding access to soil of "unequaled fertility" that produced from "80 to 100 bushels" of grain per acre.[204] Settlers virtually all grew corn, vegetables and other staples, but many also tested the fit between their new environment and different components of their agricultural heritage, experimenting with a range of additional crops from cotton

[201] Fleming, 630.
[202] Imlay, 132-133.
[203] Graham, 230.
[204] Bodo Otto to Charles Gravier, March 11, 1786, English translation of French original, SC 288 Kentucky Historical Society, Frankfort, KY.

and tobacco, to hemp and flax. The same observer predicted that when a "sufficient population shall have given life to this new colony it will be able to carry on a profitable commerce in tobacco, hemp, cotton, grain, cattle and peltries."[205] As the scope of cultivation changed from subsistence-level production or a few scant acres cleared in order to validate a land warrant, to market production, settlers' influence on the landscape expanded. The result was a dramatic simplification of the biological processes occurring on an expanding portion of the land. Acres of single crops replaced the highly diverse vegetation pioneers had first encountered.

Bluegrass pioneers sought the most control over the agroecosystem they started in the mono-crop fields that sprang up wherever pioneers settled, but many found greater success by working more subtly within the natural framework. The rapid rise of the livestock industry exploited the region's natural ability to support large herds of grazing animals. Settlers and promoters alike recognized this potential; indeed, it often acted as a primary selling point. The ease with which "cattle and hogs…find sufficient food in the woods, not only for them to subsist upon, but to fatten them" functioned as the backbone of Gilbert Imaly's blueprint for agricultural success and John Filson assured his readers livestock multiplied prodigiously when turned loose upon the land.[206] Some settlers recalled that the process was not as easy as promoters indicated, and that the frontier environment presented serious challenges to livestock. William Clinkenbeard remembered that during the "hard winter" of 1779-1780 a "[g]reat many lost their cattle"

[205] Ibid.
[206] Imlay, 134; Filson, 27.

and described walking "through the cane and see[ing] cattle laying with their heads to their side, as if they were asleep; just literally froze to death."[207]

Just as the weather might undermine a settlers' attempt to protect and multiply their animal wealth, Clinkenbeard also remembered incidents in which the regional predators turned their attention on livestock. For instance, wolves and bears both frequently took "pigs and things close around the Station" so settlers enjoyed the opportunities to exact immediate revenge, when they happened to present themselves. This was the case when "Van Swearingen saw…a bear chase a big hog close up to the Station one day" before shooting it and watching as the injured bear "ran across the road, jumped over the fence, fell down in the garden and died there."[208] Despite these obstacles, pioneers and their livestock succeeded in gaining a foothold in the landscape.

Confronted with the various threats to their control over their livestock, as it wandered in an environment settlers now considered their own, pioneer herdsmen responded viciously. They set traps to catch unwary predators and might torture them cruelly as when "Dick Piles run a ring around the neck of a wolf with his knife, drew its skin over its eyes and let it go. 'Twas said he skinned another alive and let it go."[209] Settlers killed bears, panthers, buzzards and any other wild animal they thought might pose a threat to their livestock, but they seemed to take a special pleasure in eliminating wolves, for whom they also seemed to reserve a special fear. This might have stemmed from the fact that wolves often seemed to defy their mastery over the landscape, even over their

[207] William Clinkenbeard interview, *DC.*
[208] Ibid.
[209] Ibid.

immediate surroundings, as Benjamin Allen recalled that "[w]olves have been known to steal the meat out from under the hands of men who had wrapped it up and laid on it."[210]

The decline of native animal populations due to overhunting created even wider openings in ecological niches for livestock and other introduced species to fill. When the first settlers to the region arrived, they were staggered by the number and variety of game animals and utilized them extensively during their struggle to survive and put in their first crops. The degree to which many settlers "lived on the gun" can be illustrated by the many recollections of living "without bread." As Felix Walker recalled, the 1775 party to establish Boonesborough "lived plentifully on wild meat, buffalo, bear, deer, and turkey, without bread or salt."[211] Three years later Daniel Trabue reported that the residents of the fort had "bear meat and buffilow and venson aplenty…but not any bread."[212] Again during and after the "hard winter" of 1779-1780, many newly arrived families "never tasted bread, until the corn was fit to make meal of" and so "their dependence was entirely on the game."[213] Desperate to recreate some semblance of their traditional diet, some pioneers "used buffalo [meat] for bread and bear for meat."[214] This type of heavy

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[210] Lucien Beckner, ed., "John D. Shane's Interview with Benjamin Allen, Clark County" in *Filson Club History Quarterly*, 5, no. 2 (1931): 87-88. For more on the general relationship between people and wolves, see Jon T. Coleman *Vicious: Wolves and Men in America*, (New Haven: Yale University Press, 2004), Part Two is particularly relevant to Kentucky.

[211] Walker, 153.

[212] Trabue, 47.

[213] Bradford, 31.

[214] Lucien Beckner, ed., "John D. Shane's Interview with Benjamin Allen, Clark County" in *Filson Club History Quarterly*, 5, no. 2 (1931): 69.

reliance on game animals for calories contributed to collapse local populations of large native herbivores in the countryside near stations.

The seemingly infinite supply of large game soon proved finite, and it was not simply the settlers' hunger that drove the changes.[215] John Hedge described the wasteful practices of the early years when hunters often killed buffalo "for sport" and left their corpses to rot. William Clinkenbeard described a typical hunt during which his party killed 24 buffalo for their skins before reflecting that the settlers "did destroy and waste them at a might rate."[216] Already by 1783, Filson acknowledged the first pioneers "had wantonly sported away" the majority of the buffalo population, a settler who arrived in 1787 "never saw a wild one" and a correspondent for the *National Gazette* in 1791 remarked the species had "entirely quitted the cultivated parts of Kentucky."[217] Barthélemi Tardiveau noted the impact of this change for residents in 1789, writing from near Danville that the "settlers are no longer as much given to hunting, but to tilling the soil."[218] Nor was the decline in game limited to buffalo. Elk, deer and turkey populations

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[215] Aron further pointed out that "[c]ommercial incentives do not alone account for the depletion of game in the 1760s and 1770s" since backcountry hunters had limited material needs, and that "the exhibition of manhood that motivated" the wasteful killing sprees. 55.

[216] William Clinkenbeard interview.

[217] Filson, 27; Jesse Graddy interview, vol. 11, box 83, Series CC: "Kentucky MSS," *DC*; "Some Particulars on Kentucky" *National Gazette,* 1791, quoted in Eugene L. Schwaab *Travels in the Old South, Selected from Periodicals of the Times* (Lexington: University Press of Kentucky, 1973), 60.

[218] Howard C. Rice, *Barthélemi Tardiveau: A French Trader in the West, Biographical Sketch, including letters from B. Tardiveau to St. John de Crèvecœur (1788-1789)* (Baltimore: The Johns Hopkins Press, 1938), 32. From The Filson Historical Society, Louisville, Ky.

also diminished.[219] The destruction, even to the point of regional extinction, of herds of large native herbivores provided an opening for cattle and hogs to exploit. These animals replaced their wild counterparts as the main primary consumers in the ecosystem.[220] In essence, wasteful hunting practices eliminated much of the livestock's competition for resources.

The "grazing system," which pioneers took the first steps toward creating centered on woodland pastures filled with livestock and modified "natural" ecological processes with tremendous success.[221] Wharton argued farmers preserved much of the "original character" of the landscape as "the savanna-woodlands were converted to woodland pastures by altering the ground vegetation and retaining the canopy trees," which allowed them to utilize the region's "phenomenal suitability" for livestock.[222] Central Kentucky farmers eventually sowed grass seed, but originally they benefited from the success of the invasive species *Poa pratensis*, better known as bluegrass, at outcompeting native buffalo grass when colonizing disturbed ground.[223] By causing

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[219] Imlay, 102.

[220] The ecological term "primary consumer" refers to an animal species that directly consumes the photosynthetic production of the landscape and all herbivores are considered "primary consumers." The modifier "main" here simply refers to the fact that livestock species replaced wild herbivores as the most environmentally impactful animals in the Inner Bluegrass.

[221] For more on the "grazing system" see Richard Troutman, "The Social and Economic Structure of Kentucky Agriculture, 1850-1860" (PhD dissertation, University of Kentucky, 1958), 95-97. The creation and elaboration of the "grazing system" features prominently in subsequent chapters, which detail its roles within the wider agroecosystem.

[222] Wharton, 47.

[223] Donald E. Davis, *Southern United States: An Environmental History* (Santa Barbara: ABC-CLIO, 2006), 146.

massive disturbances to the landscape through their livestock and agricultural practices, settlers inadvertently created the conditions that allowed bluegrass to flourish.

While not readily apparent, and overlooked by most contemporaries, a test case for the spread of bluegrass due to a combination of natural and cultural factors might have preceded the arrival of permanent Euro-American settlers. On one of Daniel Boone's initial forays into the region, he and John Findley found the introduced species of bluegrass growing at the burned and abandoned native trading post of Blue Lick Town. Boone's nephew later speculated that seeds must have made the journey along with early traders like Findley who packed their goods in English hay.[224] Drawn to the spot by cultural imperatives on both sides, to exchange skins for manufactured goods, the small botanical stowaway took root in the disturbed landscape. Grazing mammals, such as buffalo and elk, then dispersed seeds to other open spots in the environment. As this early example indicates, the environmental balance favoring one species over another could be a delicate thing. Settlers, their livestock, and their associated plant species proved supremely disruptive.

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The fate of the native bamboo illustrates the trends at work on the landscape. Cane fattened and multiplied farmers' cattle, but it could not long survive repeated grazing or the fires settlers often set to help clear underbrush. As the cane was burned or grazed off the land, a process of secondary succession began in which different species struggled to fill the recently vacated niche. Bluegrass, an unintentional European import,

[224] Faragher, Kindle locations 1363-1376.

ultimately triumphed over its native competitors and became the base on which the farmers of the region built a celebrated livestock industry. Some residents commented on these changes as the previously abundant cane became "scarce and a curiosity," while bluegrass and similar species sprang up to "form excellent pastures" on land that had been cleared or cultivated.[225] The woodland pastures that central Kentucky settlers, their livestock, and invasive bluegrass began to form during the 1780s constituted early steps in the creation of celebrated agroecosystem renowned for its ability to produce valuable animals that continues to this day.

The system of land use resembled a shifting mosaic during the frontier period. A slowly shrinking, though still massive, portion of the countryside remained forested. Increasing numbers of livestock roamed the forests eating whatever they could in the understory and opened ecological niches for introduced species. On more and more land, settlers practiced row-crop agriculture with domesticated species such as corn, wheat, rye and tobacco. Hemp cultivation did not fit this pattern since it grew in dense stands rather than rows. The crop also caused less damage to the soil since most of its organic materials remained on the farm through the process of dew rotting.[226] These sections of the agroecosystem were actively policed by farmers who removed any competing plants

[225]William Clinkenbeard interview and Imlay, 193. For more on livestock as source of intercultural conflict and as engines of ecological change, see Virginia DeJohn Anderson, *Creatures of Empire: How Domestic Animals Transformed Early America* (New York: Oxford University Press, 2004).

[226] Dew rotting refers to the process in which the hemp was spread out across the field it grew in to rot in the open air for a couple of months in order to break down the resin that binds the stalk to the valuable fiber. See James F. Hopkins, *A History of the Hemp Industry in Kentucky* (Lexington: University Press of Kentucky, 1951), 20-24.

from their fields and shot any animals they found raiding their crops. These polices mirrored those applied to predators on settler livestock. Each feature of the emerging Inner Bluegrass landscape resulted from complex interactions of natural and cultural factors.

Any successful agricultural endeavor must work within nature's constraints in a particular environment, but within these limits the projects individuals devise are largely shaped by their cultural beliefs.[227] Hence, Kentucky settlers chose to fence their fields and let their livestock "run in the woods without a keeper."[228] Their views on proper modes of agriculture determined the crops they grew and the techniques they followed. The cultural transplants ranged from broad ideological structures such as the belief in the private ownership of land to minute biological materials like "peech Stones" and cotton seeds.[229] Two assumptions, both intimately connected to the process of commodification undertaken by the settlers, proved more significant than the individual species pioneers did or did not choose to cultivate in their new agroecosystem. The first held that the production of the landscape should be maximized and that agricultural products assumed

[227] Aron's chapters "Land Hunting", "The Rules of Law", "Rights in the Woods", and "The Bluegrass System" provide a detailed examination of these cultural factors and conflicts between settlers over which cultural norms would come to dominate the region.
[228] Filson, 27.
[229] David Wood Meriwether requested that his father, William Meriwether, living in Virginia, "Save as many peech Stones as you can" for David to plant at his new homestead in Kentucky. David Wood Meriwether to William Meriwether, September 14, 1785, The Filson Historical Society, Louisville, Ky. Sarah Graham recalled her "mother brought four pounds of unpicked cotton" when they moved out and used the seeds to raise "fourteen pounds of picked cotton the first year." Lucien Beckner, ed., "Rev. John Dabney Shane's Interview with Mrs. Sarah Graham," in *Filson Club Historical Quarterly* vol. 9, (1935): 227-228.

monetary value. This belief, virtually unquestioned, guided the behavior of both resident settlers and absentee speculators. It also placed a premium on securing access to markets, creating an additional environmental component to land valuations. The second assumption, not unchallenged, but widespread, held that the creation of a profitable agricultural system required the use enslaved labor.

In describing the factors responsible for the agroecosystem that began to emerge between 1770 and 1792, economic motivations must take top billing At their root, the promotional materials of the era emphasized the opportunity for "the farmer who has but a small capital to increase his wealth in a most rapid manner" when "wealth" was defined as "the comforts of life."[230] The distinction between wealth as specie and "the comforts of life" was appropriate since the starting circumstances of different settlers in Kentucky reflected a wide range of socioeconomic positions, yet each individual sought to improve their standards of living. The promise of material advancement lured hundreds of thousands of people into the region in a few decades. Once there, the decisions each farmer made in pursuit of individual success contributed to the creation of the Bluegrass agroecosystem. The changes in the physical landscape also spurred change in how residents experienced the local environment. Just as the world around the settlers bore the diverse marks of their influence, so too did pioneers reflect their experiences in the local landscape.

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[230] Imlay, 134.

Chapter Four: Experiential Landscape of the Bluegrass Frontier

The evolving physical landscape of the Bluegrass explored in the previous section was closely related to, but distinct from, the experiential landscape inhabited by settlers in the region during the period. The physical world of the frontier embodied objective facts; there were or were not buffalo near the station, crops did or did not survive a late spring frost, cane did or did not germinate after repeated grazing by livestock. The experiential landscape of individual settlers, however, was subjective and dependent on the particular characteristics and values of the people involved.

As historian Elizabeth Perkins has pointed out, settlers' "visual angle" on the landscape reflected both their physical and metaphorical place within it.[231] Her study focused on a series of interviews conducted by Reverend John Dabney Shane during the mid-nineteenth century with former pioneers of the Ohio Valley, whose records represent some of the best evidence available on the regional environment during the initial decades of Euro-American appropriation of landscape.[232] Perkins' cultural analysis of the interviews explored the diverse memories and perspectives that individuals had of the period, but she also addressed a more fundamental aspect of how one's "station in life, mobility, education and place of residence" affected one's experience of the landscape.[233] This section will apply Perkins' concept of the "visual angle" directly to the evolving landscape of the Bluegrass Region. It will also examine the ways in which

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[231] Elizabeth Perkins, *Border Life: Experience and Memory in the Revolutionary Ohio Valley* (Chapel Hill: University of North Carolina Press, 1998) Kindle Edition, location 496.
[232] Lyman T. Draper, whose papers (*DC*) form a significant source of evidence for this study, later collected the interviews.
[233] Perkins, Kindle location 496.

perceptions of the environment influenced diverse groups and individuals to interact with the landscape in distinct ways. These differences in interaction, in turn, meant that different groups played distinct roles in transforming the landscape of native hunters circa 1770 into to a particular species of budding Euro-American agroecosystem by 1792. This section explores the connections between the distinct experiential landscapes inhabited by different residents of the Bluegrass and the rapidly changing physical landscape inhabited by all.

Adult white male perspectives dominate the extant evidence on which discussions of the Kentucky frontier are based, but statistically speaking their experience of the actual landscape was not dominant. They shared the frontier environment with white women and children and with black men, women and children.[234] In fact, white men constituted a distinct minority by the first federal Census in 1790, making up only 20.6 percent of the region's population.[235] Since individuals from the other groups, nearly four in five residents, experienced the landscape differently than those whose voices speak the loudest across the intervening centuries, it is important to find and listen to their voices too. The experiential landscapes inhabited by the enslaved, women and even children were also significant in shaping the physical evolution of the Bluegrass environment. Examining the changing landscape from diverse perspectives helps develop a more

[234] This, of course, discounts native residents of Kentucky at any given period.
[235] U.S. Bureau of the Census, "Population of the United States as return at the First Census, by states: 1790," *First Census of the United States*, (Washington D.C.: Government Printing Office, 1908), 8, http://www2.census.gov/prod2/decennial/documents/1790g-02.pdf (accessed January 28, 2015). 15,154 listed as "Free white males of 16 years and upward" in a total population of 73,677.

complete understanding of the frontier environment that overcomes the myopic fascination with the hunting and military exploits of white men.

Enslavement on the Bluegrass Frontier

The involuntary nature of most African-American migration to the region marks an obvious, yet vastly important, difference for the overwhelming majority of early black settlers who were enslaved by a minority of the white pioneers. Rather than viewing Kentucky as a place of new opportunity, a "furtele Countrey," as one early white settler at Harrodsburg put it, in which to acquire "a Computant Fortune for my Children" to save them the "fatiege and hard ships of Acquireing it themselves," most enslaved migrants faced the prospect of elevated "fatiege and hard ships" with no promise of reward.[236] In fact, their migration often came at the additional personal cost of completely severing family and community connections forged east of the Appalachians. These factors meant that rather than coming to Kentucky as eager, if apprehensive, migrants, the enslaved often experienced forced migration under extreme mental duress. Some resisted the move to such an extent as to "refuse" to leave their old community. For example, Stephen Trigg complained after his arrival in Kentucky that an enslaved pair carried through on their threat by running away prior to his departure from his Virginia residence.[237] The annoyed man sought to solve his labor problem by selling the two in the east and using

[236] Letter from Harrodsburg, January 30, 1780, Harrodsburg, KY, The Filson Historical Society, Louisville, Ky.

[237] Stephen Trigg letter, December 8, 1781, in *The Stephen Trigg Papers*, The Kentucky Historical Society, Frankfort Ky. Trigg's correspondence is frustratingly vague on the two who fled rather than leaving Virginia and we can only speculate on even the gender of the pair.

the proceeds to in Kentucky to purchase replacements, but Trigg found himself frustrated again as his correspondence documented his struggle to locate men or women available for sale.[238] The problem was not a lack of enslaved individuals per se, rather it was their high value as a labor source when judged in comparison with the most widely held and traded commodity of the time: land.

Trigg later voiced his complaints about the scarcity of enslaved labor in Kentucky and rued his decision to sell the pair rather than force them to Kentucky. But he died leading the Lincoln County militia at the Battle of the Blue Licks in early 1782 before he could rectify what he saw as a critical error preventing him from establishing a profitable enterprise based on seized land and slavery.[239] For the rest of the enslaved Americans unfortunate enough to be controlled by pioneer-era white men like Trigg, however, it proved impossible to exercise the type of resistance exerted by the unnamed pair who had escaped Trigg's immediate grasp. Instead, a train of forced migrations transplanted American slavery to Kentucky in a seemingly logical, and necessary, outgrowth of the agroecosystem envisioned by many white men like Trigg.

To people raised within a society that reserved the most difficult agricultural labor for the enslaved, settling a new region and imposing a new regime on the land seemed to demand the imposition of slavery as well. While not every white settler held this view, a sufficient number acted on his or her belief and allowed slavery to take firm root in the

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[238] Ibid., January 31, 1782.

[239] For more on Trigg as the Battle of Blue Licks see John Mack Faragher, *Daniel Boone: The Life and Legend of an American Pioneer* (New York: Henry Holt and Co., 1992) Kindle Edition, location 3911-3965.

Bluegrass. The extreme physical difficulty of carving an agricultural system from a resistant landscape, particularly given the relative scarcity of labor and subsequently high cost of hiring white men, incentivized slave labor as a reliable source of human power. The environmental context, including the geographic distance from eastern settlements, the rich native flora, the climate and perceived agricultural potential of the soil, among a range of "natural" factors, encouraged ambitious would-be settlers and speculators to include slavery in their plans. The type of commercial agriculture that many early whites projected for the future of Kentucky resembled the systems of their parent cultures, including a reliance on enslaved labor.[240] This is not to say that slavery in Kentucky was *inevitable*, rather it is to emphasize the important factors that seemed to encourage aspiring agriculturalists in the region to turn to a ready-made solution for their labor difficulties.[241] As the institution became incorporated into the fledgling agroecosystem, however, slavery's roots sank deeper, ultimately growing into a wickedly difficult weed to extract, as we will see.

To the first enslaved migrants who represented the initial seeds of the slave system transplanted in Kentucky, the journey west was a perilous and frightening ordeal.

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[240] The particular views of the Bluegrass landscape held by such commercially minded white men and how they seemed to necessitate a particular relationship with the regional ecology will be explored in greater detail later in this chapter.

[241] Compared with Craig Thompson Friend and Stephen Aron who emphasize the contingent nature of slavery in Kentucky and the possibilities for alternate paths during the frontier period, the agroecosystem perspective reveals the strong influences operating on settlers in favor of slavery during the dangerous and labor-scarce 1770s and 1780s. This gave Kentucky's slavery a stable position in the regional economy and culture from which its defenders were able to beat back any attempts to undermine their human property until the Civil War.

The harrowing trip across the Cumberland Gap via the Wilderness Road features prominently in the accounts of many white migrants of the era, but how enslaved Americans experienced the same obstacles is left to speculation. Given the difference in motivation behind each group's travels, that is, personal choice contrasted with force, the enslaved likely experienced the difficulties of the trip without the mitigating promise of future prosperity. If an individual migrated because they thought that the choice would ultimately benefit them and their family, they could cling to these thoughts during difficult periods. When someone was forced to make the same journey, however, the situation was flipped; instead of looking forward to a better future after the temporary hardship of settlement, enslaved migrants would have envisioned unending physical toil without even the community they had been forced to leave behind to support them. This only served to amplify the environmental horror show that often accompanied the journey. John May described a harsh late winter and early spring march "through an uninhabited Country…rugged and dismal" with "thousands of dead Horses & Cattle on the Road Side" causing "a continual Stench" and fouled the only available water sources.[242] Coupled with the threat of imminent attack by hostile natives, whether real or imagined at any particular moment, such environmental scenes likely struck forced migrants as ominous portents of their fate on the Bluegrass frontier. Another white man tasked with forcing enslaved individuals west into Kentucky recalled the frequent snow and rain that left the people "out of heart and Sick…wet and almost ready to give out" until he "came forward

[242] John May to Samuel Beall, April 15, 1780, Beall-Booth Family Papers, The Filson Historical Society, Louisville KY.

with my good friend whiskey" to induce further mileage, a tactic he repeated hourly for the remainder of the waking journey.[243] That enslavers found such approaches necessary reveals the great deal of resistance waged by the people they forced onto the Kentucky frontier well into the 1790s.

Even when travelling to the Bluegrass on the comparatively safe route down the Ohio River to Maysville, as became increasingly common, forced migrants found reason to be apprehensive about their future. Pioneer Daniel Trabue related an anecdote from such a journey. When the trip stretched longer than anticipated, and the men took to the riverbanks to hunt in order to supplement their diet, one enslaver warned "his negros they must eat Turkeys and save the bread and bacon" to which one of the men quipped "That will Do very well, master. If we have a plenty of Turkeys we will never Die; but if we have bread and bacon too, we would live a heap longer."[244] The white men laughed at the perceived illogic, but missed a fundamental truth their captive grasped: that the abundance of the frontier environment could not replace the products of an agroecosystem for which settlers would soon yearn. Perhaps the laughter struck a harsh note to the listeners because of the hardships they stood to endure when working to create a landscape capable of producing even basic items like bread and bacon. Free of the distortions created by visions profits to be wrung from the imposition of the new

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[243] John Thompson recalled travelling with the slaves of John Breckinridge ahead of the Breckinridge family's arrival as quoted in Ellen Eslinger, Editor, *Running Mad for Kentucky: Frontier Travel Accounts* (Lexington: University Press of Kentucky, 2004) pg. 35.

[244] Daniel Trabue, *Westward into Kentucky: The Narrative of Daniel Trabue* ed. Chester Raymond Young (Lexington: University Press of Kentucky, 1981), 136.

agricultural regime, enslaved migrants often formed a more accurate understanding of the ecological realities that awaited them than those imagined by their overly optimistic enslavers.

Upon their arrival, enslaved proto-Kentuckians often found their fears justified. Many found themselves first swept up in the simmering conflict between natives and settlers. As the settlers and speculators struggled to transplant an agroecosystem in the region, the role they envisioned for the enslaved labor force only compounded the dangers facing black men and women in the frontier war. The hugely significant fact of their enslavement provided a buffer against the whims of a reluctant white labor force that was able to flee back east or into fortified settlements during periods of environmental hardship or prolonged threat from native warriors. Enslaved laborers had no such choice. John May alluded to the difficulties of securing wage labor and the subsequent advantages of slavery when he complained of an employee leaving his service and being unable to hire a replacement "for any Price," resolving instead to "carry out…a very faithfull Negro Fellow" able to command *no* price from him.[245] The threat of violence posed by native competitors for possession of Kentucky was only one of the factors that made some white would-be settlers hesitant to relocate in the frontier environment.

The subsequent section of May's letter to his business partner in Virginia outlined "the Distress [of] the People in this Country" without grain or bread and struggling to survive after a harsh winter killed much of their stock and regional game populations. The

[245] John May to Samuel Beall, March 15, 1780, Beall-Booth Papers, The Filson Historical Society, Louisville, Ky.

dismal prospects suggested by such scenes hinted at the significance of enslaved labor in establishing the beachhead on which the American agroecosystem first took root in the Bluegrass.[246] Even when the settlement project seemed to teeter on the edge of success or failure, enslaved Kentuckians could be compelled to stay the course, unlike their free counterparts who often viewed such moments as prudent times to relocate east. In effect, this allowed enslavers like John May, who chose to gamble their fortunes on the future success of an agricultural land market in Kentucky, to bet using the lives of black men and women as their stakes.

Since the white men who created most of the documentation only discussed the enslaved in extraordinary circumstances, it follows that enslaved pioneers appear most frequently in dramatic episodes, tragically often as victims, listed almost as an afterthought. This was the case in William Calk's journal of his 1775 exploration of Kentucky when he spared three words, "we lose Drive," to describe the death of an enslaved traveling companion.[247] Two weeks later, after a "letter from Capt Boon at caintuck of the indians doing mischief," several of Calk's white companions chose to turn back, an option not readily available to men like Drive.[248]

The possibility of native raids on Kentucky settlements continued well into the 1790s, and their consequences fell heavily on the enslaved. During the spring of 1792, for example, the *Kentucky Gazette* reported, "the Indians killed three white men and three

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[246] Ibid.
[247] Lewis H. Kilpatrick, ed., "The Journal of William Calk, Kentucky Pioneer," *The Mississippi Valley Historical Review*, Vol. 7, No. 4 (1921) 366.
[248] Ibid., 367.

negroes on Elkhorn and took several prisoners" while in a separate event a "party of them…took 2 or 3 negroes prisoner; were pursued, overtaken and the prisoners retaken, and one of the Indians killed."[249] The phrasing chosen by the *Gazette* author, "prisoners retaken," revealed the difficult predicament enslaved Kentuckians faced; clashes between natives and white settlers left black pioneers in the uniquely disadvantaged position as to be preyed upon by both sides. Further complicating the threats posed to the enslaved was the reported native tactic of refusing to take "prisoners, expect Negroes, which they could sell at Detroit for two kegs of Taffy" or cheap rum.[250] Thus, capture could mean another harrowing forced migration to a foreign landscape, again violently uprooted from any ties they had established. These "prisoners retaken" would likely have experienced the pioneer landscape as an uncertain and hazardous place.

While the frontier war often placed the enslaved in heightened physical danger, the exposed positions sometimes served as stages on which black Kentuckians performed heroic acts that won the grudging respect of local whites. Pioneer Isaac Hite related such an episode to his father back in Virginia. Six native warriors ambushed a settler household while the white men were away, but the quick thinking and decisive actions of an enslaved man saved the white woman and children from capture. The hero of this frontier vignette, whose name Hite frustratingly failed to record, subdued a warrior who managed to get inside the cabin in hand-to-hand combat, while also managing to bolt the door to the cabin closed. Despite the attempts of the remaining five natives to tomahawk their way

[249] *Kentucky Gazette*, May 5, 1792.
[250] Ibid., May 12, 1792.

into the structure, the enslaved man held off the attackers until assistance arrived from the nearest neighbor; in Hite's words: "thus was a large family Saved from Savage Barbarity."[251]

Yet the savage barbarity of slavery sacrificed countless families in the process of replicating itself in Kentucky. In some cases, the demand for labor stole a series of people from their loved ones to the east. One Virginia enslaver reported he would send "Cesar" though "his Wife poor Grace…complains one before was taken from her to your Country" and predicted she might "loose her life" from heartbreak when Cesar departed.[252] The men who brought the institution with them across the mountains, ignoring the human costs of their actions, did so because they fully understood the important roles slavery could play in establishing the foundation of the agroecosystem they envisaged. Fundamentally, the enslaved represented a pool of labor that could be brought to bear on the local ecology. Slavery also conferred on the enslavers the further benefit of greater control over labor than was possible using free workers and even allowed for yearlong rental agreements in which the enslaved were hired out to other whites, which in turn, created even greater flexibility. A commodity market for enslaved labor, whether purchased by the life or by the year, sprang up with the first settlements.[253] Scant

[251] Isaac Hite to Abraham Hite, April 26, 1783, The Filson Historical Society, Louisville Ky.
[252] Colonel Charles Thurston to Charles M. Thurston, February 17, 1796, Charles M. Thurston Papers, The Filson Historical Society, Louisville Ky. For more on forced migrations to Kentucky see Gail S. Terry, "Sustaining the Bonds of Kinship in a Trans-Appalachian Migration, 1790-1811: The Cabell-Breckinridge Slaves Move West," *The Virginia Magazine of History and Biography*, Vol. 102, No. 4 (Oct., 1994), 445-476.
[253] For example Harry Innis, *Kentucky Gazette*, December 15, 1787, notice of "nine likely negroes" to "be hired on twelve months credit" and Joseph Gale, *Kentucky Gazette*, September 15, 1787, notice of "a likely virginia born negroe woman and three children,

descriptions of the work performed by black Kentuckians during the frontier period survive, but from bits and pieces, one is able to surmise many of the tasks that made up their laboring lives. Initially, much of their work entailed clearing land for settlement. The process of felling trees, removing undergrowth, including the thick native cane, and grubbing out roots in order to make way for agricultural fields absorbed the efforts of workers, both slave and free, to varying degrees for decades after the first settlers arrived. The rush to clear land in order to plant a crop of corn during the first year often saw enslaver and enslaved laboring in the same proto-field.

Pioneer William Clinkenbeard recalled such a scene in his description of his initial agricultural pursuits after arriving at Strode's Station. Clinkenbeard and five other men, acquaintances who had migrated from the same "neighborhood in Virginia," cleared a total of fifteen acres, which they chose to include within one fence due to the exigencies of the frontier landscape.[254] The constant threat of attack by natives meant the settlers felt compelled to post guards to remain on the lookout while the others performed the physical labor necessary to bend each tiny portion of the landscape to their will.[255] Clinkenbeard did not state explicitly who took turns standing guard while the others worked, yet it seems unlikely the enslaved member of the group often had the opportunity. The distinctions drawn by Clinkenbeard and his fellows are more obvious in

late the property of Robert Collins taken in execution to satisfy Meridith Helm" to be sold the next week.

[254] William Clinkenbeard interview, *DC*

[255] It also demonstrates why the native tactic of targeting elements of the agroecosystem could be effective in slowing settlers' progress by forcing them to dedicate labor to defense rather than transforming the landscape.

their division of the newly cleared land, which occurred on the basis of how much labor had been invested. Clinkenbeard and his brother received a total of six acres, two other white men claimed two a piece, and Thomas Swearingen received five because he and "a negro fellow of his" had cleared that area.[256]

The story of how this fifteen-acre plot of land underwent the initial transformation from native trees and cane to proto-cornfield reveals a lot about how pioneer-era black Kentuckians experienced the environment. They performed the intense physical labor necessary to forcefully impose an ecological transformation on specific landscapes and in the process developed an intimate, hands-on, understanding of their new environment. In this, they shared experiences with many common white settlers, if fewer with many elite white speculators. The enslavement of the vast majority black pioneers, however, puts the history of their relationship with the land in a harsher light. Not only did the enslaved man endure the same dangerous frontier conditions as his free counterparts, he did so from the doubly vulnerable position of captive. The reward for his labor accrued to his captor, a direct appropriation of some two or three acres for Thomas Swearingen in this example, but which represents a theft that continued systematically over decades. Enslaved migrants to pioneer-era Kentucky came to know the landscape through their labor, which white enslavers appropriated from them and channeled toward creating the foundation for a new agroecosystem.

[256] William Clinkenbeard interview, *DC*

The 12,430 enslaved people who lived in Kentucky by 1790, who made up 16.9 percent of the population, had tremendous impacts on the landscape.[257] The majority spent a substantial portion of their time engaged in clearing the landscape of its native vegetation in order to make way for simplified biological communities of a few favored species to be cultivated in single-crop fields.[258] This fundamental ecological restructuring of the regional environment often took the air of an assumed process, fading into the background of the documentary evidence. Yet, the labor necessary to accomplish the task absorbed countless human hours working at the junction where natural factors such as sun light, rain fall and soil quality intersected with cultural variables such as crop species, favored livestock and technological implements. Our mental image of the man enslaved by Thomas Swearingen, sweating amidst the tall native cane, grubbing out the roots of trees with an axe, and finally planting the first crop of corn, should take full account of both the human suffering endured and the ingenuity expended in pursuit of what became the Bluegrass agroecosystem.[259]

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[257] U.S. Bureau of the Census, "Population of the United States as return at the First Census, by states: 1790," *First Census of the United States*, (Washington D.C.: Government Printing Office, 1908), 8, http://www2.census.gov/prod2/decennial/documents/1790g-02.pdf (accessed January 28, 2015).

[258] Discussion of the spreading environmental effects of these changes will be included in the following chapter.

[259] For examples of how white Americans in other ecological contexts utilized slave labor in pursuit of their ideal agroecosystem see Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (Cambridge: Belknap Press of Harvard University Press, 2013) and Mart A. Stewart, *'What Nature Suffers to Groe': Life, Labor and Landscape on the Georgia Coast, 1680-1920* (Athens: University of Georgia Press, 1996). The technology brought to bear on the regional environment will be discussed in greater detail in the next chapter.

The work required to impose a new agricultural system was so difficult, and the labor so valuable, that white settlers sometimes negotiated ratios of five acres of uncleared land in exchange for the labor to clear one acre.[260] Imagine the tens of thousands of acres stolen from enslaved settlers when judged according to the standard applied to white men. As was the case with Thomas Swearingen and the enslaved man forced to clear land on his behalf, the profits of this theft accrued to the enslavers and underwrote the construction of the agroecosystem they envisaged. The elevated cost of hiring white labor relative to land helps explain why so many slaves were forced west into Kentucky and why black hands did so much of the labor of clearing away the old ecosystems to make way for the new.

While the labor performed by enslaved Kentuckians operated directly on the physical environment and shaped the way they experienced the evolving landscape, the institution of slavery also facilitated the transformation of the landscape in less obvious ways. A strong relationship existed between commodified land and commodified humans on the Kentucky frontier. The fact that enslavers used the bodies and future laboring capacities of those they owned as liquid capital helped to grease the gears of the burgeoning commercial land market. This financial aspect of slavery proved especially useful considering the scarcity of cash in the region. Speculators and settlers frequently exchanged one for the other at rates that reveal the relative value of each.

[260] Perkins, Kindle location 1547, quotes William Risk who recalled that "John Baker…gave [Billy Keeton] the hundred acres for clearing twenty."

In 1780 Stephen Trigg agreed to sell 1400 acres of land to John Cobbs in exchange for "four negros[,] two between the Age of 15 and 25 and two others As young as [Cobbs] chose" to be delivered by August of that year.[261] When Cobbs failed to deliver on time, Trigg swapped the tract with John Floyd for a fertile thousand-acre tract on the Elkhorn River.[262] Trigg, however, never intended to settle this land either and continued his negotiations with Cobbs in Virginia to exchange the property on the Elkhorn for slaves to be sent west. The Battle of Blue Licks brought Trigg's scheming to an abrupt end, but the deal he put in motion moved forward as his estate and Cobbs bickered over whether or not a deal was still in effect and, if so, exactly which enslaved individuals would be included.[263] That significant debate centered on whether or not the "increase" of an enslaved woman, meaning the child born during the court proceedings, should be included in the price of the land reveals the level to which the commodification of the landscape became intertwined and interdependent with the commodification of people.[264] Such practices were common, though it was more likely that such a transaction would receive a brief notice in correspondence as when William Fleming buried the news that the had "advertised 2400 acres of Kentucky lands for Negroes" amid questions about

[261] John Cobbs to Cobb Waller, September 12, 1783, Stephen Trigg Papers, Kentucky Historical Society, Frankfort, Ky.
[262] John Floyd and Stephen Trigg, Articles of Agreement, February 9, 1781, Stephen Trigg Papers.
[263] John Cobbs to William Christian, May 8, 1783, Stephen Trigg Papers.
[264] John Cobbs to Cobb Waller, September 12, 1783, Stephen Trigg Papers.

family and admonitions for his children east of the mountains in a 1780 letter to his wife, Nancy.[265]

Even in smaller financial transactions, the bodies of the enslaved often served as payment. Not just land, but everything in the frontier economy, was judged against the value of black Kentuckians. Newspapers of the period document the practice in notices placed by merchants and farmers alike. Phrases like "cash and negroes will be taken in payment" dot such advertisements and reveal the central role economic role played by the monetary value ascribed to enslaved bodies.[266] In short, slavery as a commercial institution facilitated the transactions necessary to commodify and transform the Bluegrass landscape.[267]

In addition to their physical capacity for labor and financial characteristic of embodying monetary value, enslaved Kentuckians also contributed their considerable skills to the settlement project. For example, Cobbs described the mother mentioned above, whose name went unrecorded in the correspondence, as "a good Semstress, Spinner & Knitter."[268] Her aptitude would have stood her in good stead if she ever found herself and children in the situation faced by the individuals held in bondage by John

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[265] William Fleming to Nancy Fleming, June 27, 1780, Fleming-Edmonds Family Papers, Filson Historical Society, Louisville, Ky.

[266] For example, John Grant, "Notice of land for sale," *Kentucky Gazette,* April 7, 1792 and John Crittenden, *Kentucky Gazette*, March 17, 1792, in which Crittenden wrote he would accept "in payment case, negroes, cattle, sheep, or horses and mares."

[267] For more on slavery's role as an expansive, capitalist economic institution in American history see Edward E. Baptist, *The Half Has Never Been Told: Slavery and the Making of American Captialism* (New York: Basic Books, 2014). As applies to frontier and early statehood Kentucky see particularly chapter 1, "Feet: 1783-1810."

[268] John Cobbs to William Christian, May 8, 1783, Stephen Trigg Papers.

Bowman in 1780. Clothing reduced to tatters by the harsh winter, they were forced to endure freezing March weather while "about naked," a state that would persist until Bowman had clothes made out of wool "to bee got off of the sheep yet to be bought."[269] The distance between the new settlements and the old compounded the difficulties of supply and increased the value of practical skills that smoothed the rough edges of frontier life. Enslaved carpenters were particularly highly valued since their ingenuity and handiwork could transform the abundant native forests into useful implements of settled life. Enslavers valued such knowledge and ability so much that it might be used as a form of payment, as when John Stone accepted a discount on the rent he charged Josiah Holtzclaw for an enslaved man named Bill in exchange for Holtzclaw's "promise to Instruct the said fellow…in the Carpenters business."[270] Similarly, when the estate of a Danville resident advertised that the deceased enslavers' human property would be hired out on a yearly basis, the notice emphasized that one of the men was "an exceedingly good carpenter."[271] Other white migrants wrote back to family in the east agitating for skilled slaves, such as blacksmiths, to be sent to Kentucky as soon as possible, and lamented any delays they viewed as slowing their progress at shaping the landscape to their wishes.[272] While their enslavers appropriated these abilities, they also helped the enslaved survive the difficult new environment and begin carving out lives for themselves.

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[269] John Bowman to Isaac Hite, March 6, 1780.
[270] Slave rental agreement between John Stone and Josiah Holtzclaw, Eli Huston Brown Papers folder 33, The Filson Historical Society, Louisville Ky.
[271] Advertisement, *Kentucky Gazette*, December 22, 1792.
[272] Colonel Charles Thurston to Charles M. Thurston, February 17, 1796, Charles M. Thurston Papers, The Filson Historical Society, Louisville, Ky.

Some individuals succeeded in turning the frontier environment to their advantage. Amidst the sparsely populated landscape, some early black Kentuckians found avenues to a greater degree of freedom than they experienced in the east. Former pioneer James Wade recalled, for example, that "Russel" an enslaved man out hunting on his own saw Wade being pursued by native warriors and went to the nearest settlement to raise the alarm.[273] Such freedom of movement without direct supervision as Russel enjoyed might be extended indefinitely when an enslaver ventured back east to resupply or to gather family members. Wade related the tragic outcome of such an event that befell four people enslaved by Nathaniel and William Ewing. When the Ewing brothers returned to Maryland, leaving adults Jerry, Russel, a woman named Bet, and an unnamed child behind to continue laboring on their land, the enslaved might have viewed their departure as an opportunity to assert a greater level of autonomy or at least to enjoy a respite from close scrutiny; indeed, Jerry and Bet refused to leave the homestead even when Russel noticed signs of native warriors in the area.[274] By the time Russel returned with white men from the nearby Troutman's Station, the three who had remained behind had been killed. The episode revealed both the lure of relative freedom sometimes available to enslaved individuals in isolated corners of the frontier landscape and the continued dangers posed by the simmering conflict for control of the region.

Yet despite these types of occurrences, others resisted their enslavement by fleeing the Euro-American settlements to join Native American communities where they

[273] James Wade interview, *DC*.
[274] Ibid.

believed they stood a better chance of becoming full members of society. Even during the frontier period, escaping slavery for Kentuckians often meant crossing the Ohio River. Rather than flight toward free-state Ohio, however, these early gamblers for freedom sought refuge with the very groups reputed by white settlers to be the enemies of civilization itself. Their actions reveal a very different understanding of the frontier environment than those of their enslavers: rather than natives serving as the personification of a hostile and threatening landscape, for at least some of the enslaved, they represented the preferable option to the white men who represented the supposedly civilized landscape of the slave-based agroecosystem. Unsurprisingly, enslavers responded with fear and anger to any perceived alliance between their captives and their native opponents in the contest for the landscape.

The aforementioned John May and the "very faithfull negro fellow" he described bringing with him in 1780 illustrate the phenomenon.[275] Despite May's belief that the man was "a most valuable Slave and one that I thought I could have trusted with any Thing and any where," he came "very near losing him" just months after their arrival.[276] May blamed "some worthless Negroes who persuaded him to run away & attempt to get with the Indians," which he feared might prove a temptation and make Kentucky "a bad place to bring Slave to" until the natives and the cultural alternative they represented had been eliminated.[277] Ultimately, however, after a week and a half on the lam the enslaved

[275] John May to Samuel Beall, March 15, 1780, Beall-Booth Family Papers, The Filson Historical Society, Louisville, Ky.
[276] John May to Samuel Beall, December 9, 1780, Beall-Booth Family Papers.
[277] Ibid.

Kentuckian decided to return, unwilling or unable to adopt a new culture as he sought to make a place for himself in the novel environment. Whether one viewed the natives as a threat to be avoided or as a potential source of salvation to be sought out, the frontier landscape prosed myriad challenges to forced migrants to the Bluegrass.

Indeed, since most whites (and the law) assumed the position of black Kentuckians to be property, and that their property rights should be protected, the regional environment was fraught with threats to any enslaved individual seeking to enjoy a greater level of freedom for an extended period of time. Even white men who encouraged their enslaved counterparts to utilize the disorder of the frontier environment to their advantage might face the official opprobrium of society as "a Certain Macklewee" learned when a warrant was issued for his arrest on charges of "encouraging a number of Negroes to Elope from their masters."[278] This uncertain and threatening aspect of the landscape only became more pronounced over the course of the frontier period as increasing numbers of settlers meant a greater number of people to observe the behavior of the enslaved. As central Kentucky became more thickly settled and less vulnerable to native raids, increasing numbers of elite white families relocated their holdings west of the mountains, meaning that the patterns established during the period from 1770 through statehood in 1792 were repeated by an increasing number of forced migrants over the following decades. As the physical landscape underwent a transformation during the

[278] William Pope, Macklewee Arrest Warrant, August 18, 1786, The Filson Historical Society, Louisville, Ky.

period, however, so too did the experiential landscape of enslaved Kentuckians, as we will see in later chapters.

White Women in the Frontier Environment

By the first federal Census in 1790, white females constituted nearly four in ten residents in Kentucky.[279] Yet this ratio represented a rapid change over the initial years of settlement, when men far outnumbered women. The danger of the frontier war acted to suppress the migration of white women, particularly when the conflict flared in intensity, but for those who arrived, it also shaped their distinct experiences with the landscape. The perceived threat of native attacks on the fledgling settlements and the cultural prescriptions that viewed white women as particularly vulnerable members of frontier society often combined to keep women confined behind the walls of forts or stations. Historian Elizabeth Perkins described the frontier Bluegrass as a "gendered landscape," in which men roamed across broad expanses of the regional environment while women spent the majority of their time within a small, local landscape.[280]

Upon their arrival in frontier Kentucky, white women often found themselves restricted to a rough settlement structure, such as the forts at Boonesborough and Harrodsburg described above, and the acres immediately adjacent, for months or even

[279] U.S. Bureau of the Census, "Population of the United States as return at the First Census, by states: 1790," *First Census of the United States*, (Washington D.C.: Government Printing Office, 1908), 8, http://www2.census.gov/prod2/decennial/documents/1790g-02.pdf (accessed January 28, 2015). 28,922 "Free white females" in a total population of 73,677.
[280] Perkins, Kindle location 786.

years at a time.[281] This confined experience of the landscape stood in stark contrast to that of white men who often spent months at a time *away* from such dreary, if nominally safe, corners of the regional environment. It also proved a harsh contrast to the longer settled regions from which the women moved, where they often lived in much denser kinship networks and with greater freedom of movement. Once in Kentucky, however, while white men hunted for land, game, or native enemies, white women largely remained behind, tethered to small patches of the landscape by the perception of danger in the broader environment. Yet, it would be a mistake to conflate this relatively narrow geographic experience of the frontier environment with a slight or insignificant influence on the contest for control over the landscape or on the regional ecology. In reality, white women played important roles in early efforts to settle the region and in the project of transplanting a viable agroecosystem. Their relatively narrow experience of the frontier landscape ironically influenced the broader evolution of the Bluegrass environment.

Stories abound of women captured by natives while outside the protections offered by the station or fortified homestead and form a common theme in the recollections of former pioneers. Sometimes women were killed straight away, but often they were taken captive and brought to live in the native culture. Survivors left behind lamented the unfortunate turn of events and used the stories to warn others to behave more cautiously. Even for the rare captive who managed to escape or was rescued, such

[281] For more on the physical aspects of such frontier settlements see Nancy O'Malley, *Stockading Up: A Study of Pioneer Stations in the Inner Bluegrass Region of Kentucky* (Lexington: Program for cultural resource assessment, Department of Anthropology, University of Kentucky, 1987).

an incident might profoundly change the individual. One pioneer remembered a returned captive who "didn't know her name or her people's" and "looked as much like an Indian for color and dress as an Indian herself."[282] This type of example revealed the high stakes of underestimating the threats of the frontier landscape; not only death, but the complete destruction of an individual's personality might result from a momentary lapse in judgment. Such tales acted as a powerful influence encouraging white women to remain close to the relative safety of stations and homesteads.

During periods of elevated threat or actual siege, women's confinement often stretched for a considerable length of time. Jane Stevenson remembered that she remained "forted" for several years after she arrived as a seven-year-old due to the threat from natives. The numerous examples she listed of women and children captured in raids, never to be seen again, provided justification, in her mind, for such a cautious approach.[283] Conditions might start rough and deteriorate from there. For example, Daniel Trabue recalled arriving at Boonesborough in 1778 to find the residents in the midst of "hard times" with "no bred, no salt, no vegetables, no fruit of any kind, no Ardent spirts, indeed nothing but meet."[284] The "filthy" conditions described by residents of frontier stations arose from the necessity of incubating every component of the agroecosystem in such a small space.[285] People lived alongside the plants and animals

[282] Daniel Trabue and Chester Raymond Young ed., *Westward into Kentucky: The Narrative of Daniel Trabue* (Lexington: University Press of Kentucky, 1981), 125.
[283] Jane Stevenson interview, *DC*.
[284] Daniel Trabue and Chester Raymond Young ed., 47.
[285] William Fleming described the "filth of the Fort," the "filthy Cabbins, the dirtiness of the People" and "the most filthy nauseous potation of the water imaginable" at Fort Harrod.

that traveled with them and some species were more benign neighbors than others. The corn often growing inside and outside the forts likely did not cause too much nuisance, though it might serve as a hiding place for lurking natives creeping close to the settlement, but animals such as pigs, cattle, and horses certainly did impose certain micro-environmental costs. These essential members of the biological community the settlers sought to cultivate on the landscape formed a vulnerable part of the agricultural project, as we have seen. Livestock could only be fully protected if it was drawn within the same walls designed to protect the settlers themselves. In the context of the frontier war, this meant the "putrified flesh" of dead stock mixed with the everyday waste produced by humans, dogs, pigs, cattle and horses.[286] Women spent more time in these filthy surroundings than their male counterparts, which contributed to a general desire to escape the stations as soon as possible.

Yet, in certain contexts the same perception of vulnerability that typically restricted women's movement could allow greater freedom to move across the local landscape. Graham also remembered that the "women might go out in the morning as much as they please" since the "Indians wouldn't shoot them" whereas "if the men went out, they were sure to be killed."[287] This observation applied to periods of siege, when men sought the strategic advantage and resisted opening themselves up to possible attack for the perceived lesser prize of a few female captives. When Simon Girty and his

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[286] William Fleming, "Journal of Colonel William Fleming, 1779-1780" in *Travels in the American Colonies*, ed. Newton D. Mereness, (New York: The Macmillian Company, 1916), accessed via Library of Congress online, 630.

[287] "Reverend John Dabney Shane's Interview with Mrs. Sarah Graham of Bath County" ed. Lucien Beckner, *Filson Club History Quarterly* 9 no. 3 (1935), 237.

party of native warriors besieged Bryan's Station during the 1782 campaign that culminated in the Battle of Blue Licks, for example, the women of the fort took on the vitally important task of "supplying water from the very spring near the ambuscade of the enemy" based on their assumption that "the enemy would remain concealed until the men from the fort fired on the party."[288] The male tendency to underestimate the abilities of women allowed white women to interact with the local environment in ways men could not, which could provide a vital advantage at critical junctures in the frontier war. Sometimes, if only rarely, the cultural assumptions about gender that typically hemmed white women in could be leveraged to their material benefit.

Still, this occasional advantage would have been of very little solace to women like Mrs. John Arnold, who regretted that despite living near "so many rich places…the women couldn't get out to see them."[289] Instead of travelling the countryside exploring the "second paradise" described by men like Daniel Boone, women like his wife Rebecca held down the isolated forts, only experiencing the broader landscape vicariously or when the fledgling agroecosystem brought it to their doorstep.[290] The women of Bryan's Station, for example, enjoyed the diversion created by buffalo invading their cornfield even though it meant a partial setback to their agricultural project.[291] Buffalo could be killed and corn replanted, but the opportunity to break the monotony of fort life was an experience to be savored.

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[288] John Bradford, *The Voice on the Frontier: John Bradford's Notes on Kentucky,* ed. Thomas D. Clark (Lexington: University Press of Kentucky, 1993), 51.
[289] Interview with Mrs. John Arnold, *DC.*
[290] Filson, 54.
[291] Interview with Mrs. John Arnold, *DC.*

One outcome of this restricted geographic purview could be a deep knowledge of the immediate environment, including both the fort and the adjacent acres. Women applied their creativity to minimizing the hardships of the frontier. Considering the frequency of complaints about the frontier diet in the recollections of former pioneers, particularly the scarcity of corn and the necessity of relying solely on meat, women performed a valuable role by cultivating and processing crops into useful items. This labor was in addition to learning how to more fully utilize the local landscape. For example, William Clinkenbeard recalled that the spring his party arrived in the Bluegrass, the women "would follow their cows to see what they ate, that they might know what greens to get."[292] That the anecdote directly followed Clinkenbeard's comment about the lack corn available to settlers around Boonesborough emphasized the importance of the women's work. Confronted with a novel landscape without the means to immediately produce basic foods, women developed strategies for getting to know the local ecology and smooth the edges of the difficult transition. Such gendered environmental knowledge arose from the uniquely narrow but deep relationship women had with the local landscape. Tales of the hunting exploits of pioneer men might dominate the historical record on the subject of frontier subsistence, but the less dramatic contributions of pioneer women also played key roles in sustaining the settlement project.

These contributions extended beyond the culinary to include a range of useful products. Frontier women transformed the raw materials of the landscape into familiar cultural items, which might, in turn, be traded for other commodities. The former pioneer

[292] William Clinkenbeard interview, *DC.*

William Clinkenbeard recollected the important labor performed by frontier women, particularly with respect to clothing. He recalled gathering the fur or "wool" from the corpses of young buffalo when out hunting and bringing the wool back to the station where women converted the raw material into finished, if rudimentary, items like shirts and hats.[293] Women also often processed the initial products of the agricultural system, which helped the project gain momentum. Sarah Graham remembered that her mother "brought four pounds of unpicked cotton" on the journey to Kentucky, from which she "raised fourteen pounds of picked cotton the first year" providing the household with a surplus. Graham's mother weaved the fiber into valuable cloth, seven yards of which she traded for "one sow shoat" and nine yards for "some salt…and a little money besides."[294] During the same year, the woman also "raised 200 pounds of hemp" that could be processed into a useful fiber and trade commodity. She had to devise a novel way to repair the "sifter" that had sustained damage on the journey to Kentucky, which she accomplished "by running across horse-hair with a darning needle."[295] Her ingenuity and hard work ultimately yielded both clothing for her family and hemp seed for the community. A similar source likely provided the "first hemp seed" Clinkenbeard planted in Kentucky, which his wife helped transform into "a shirt" and "a right smart patch [of hemp the] next year."[296] It was only through the labor of women that the Kentucky landscape came to produce many of the essential items deemed necessary for settled life.

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[293] Ibid.
[294] "Reverend John Dabney Shane's Interview with Mrs. Sarah Graham of Bath County" ed. Lucien Beckner, *Filson Club History Quarterly* 9 no. 3 (1935), 227-228.
[295] Ibid., 228. The sifter assisted in separating the hemp seed from the rest of the plant.
[296] William Clinkenbeard interview, *DC.*

White women often occupied an intermediary link in the chain of influences that transformed the landscape, between those who worked in the land and those who ultimately consumed the land's production. The homestead hearth served as a locus of environmental change as frontier women processed the biological production of the region into culturally favored objects.

The skills pioneer women brought to bear on the landscape took on added significance in light of the many rugged miles between the eastern settlements and their new homes in Kentucky. The distance of the journey through a hostile environment compounded the isolation experienced by many early settlers in the Bluegrass, an isolation that fell most heavily on women and the enslaved, as we have seen. Migrations to Kentucky differed from earlier westward migrations by Euro-Americans in that settlers bypassed a large geographic region in the Appalachian Mountains in their pursuit of the ideal environment in which to transplant their agroecosystem. The gap between settlements, or the "wilderness" as pioneers often labeled it, made frontier-era Kentucky qualitatively different from earlier westward expansions and worsened the sense of isolation and loneliness many settlers experienced. The distance and difficulty served to attenuate personal connections with family and friends who remained east of the mountains. Communication was sporadic and imported goods expensive. The geographic and environmental realities that caused white men to covet the land of central Kentucky contributed to the initial monotony and isolation many white women experienced.[297]

[297] This is not to suggest that white men never experienced feelings of monotony or isolation on the Kentucky frontier, only that these were particularly prominent aspects of white women's experience of the landscape.

Childbirth represented one difficult and fraught event sure to break the often-dull regularity of frontier life. Women's reproductive capacity constituted an essential component of any plan for long-term settlement or permanent occupation. This fundamental biological reality linked the experiences of pioneer women, both enslaved and free. It also helped create the population boom that began to transform the landscape and sway the contest for the region decisively in the direction of the American settlers. Not only did women perform the actual labor of bringing new people into the world, they also often assisted their counterparts through the potentially deadly process. For example, midwife Sarah Owenes charged fifteen shillings to the estate William Christian for helping Polly, an enslaved woman, through a difficult birth.[298] Human reproduction underwrote the reproduction of the agroecosystem envisioned by the settlers. Each new Kentuckian born in the region added to the demands placed on the landscape and increased the incentives for settlers to transform the local environment to meet those demands. As these Kentuckians grew and matured they came to directly influence the regional ecology as they carried the work of their pioneer parents forward, as we shall see.

Childhood in the Frontier Environment

Children experienced the frontier landscape differently than their parents, and the views they developed during their formative years shaped their interactions with the local

[298]Midwife Sarah Owenes bill to estate of William Christian, May 1792 and January 1793, Library of Congress, *The First American West* Collection, http://memory.loc.gov/cgi-bin/query/h?ammem/fawbib:@field(NUMBER+@band(icufaw+cmc0061)) (accessed February 12, 2015).

environment throughout their lives. The demographics of Kentucky skewed heavily toward youth: by 1790, over 23 percent of the population was made up by white males under sixteen years old.[299] Enumerators did not break down the numbers of other groups by age, but using the ratio of white boys (under sixteen) to white men (sixteen and over) as a rough guide one can estimate that white girls made up 20.8 percent of the population, while enslaved children of both genders might have constituted an additional 8.9 percent.[300] While the estimates are more suggestive than concrete, they nevertheless highlight the fact that frontier Kentuckians were a very youthful people.

Most of these children would have shared the narrow experiential landscape inhabited by white women on the frontier, though their unique perspectives on the environment led to significant differences in how they interacted with the world around them. Certainly a gradient existed on which children approaching adulthood took on more and more of the responsibilities and outlooks of their elders, so it would be misleading to suppose a hard-and-fast distinction between a fifteen year old girl or boy and a sixteen year old woman or man, but broad differences did exist. The youngest migrants, and the increasing number of native-born Kentuckians, both black and white, did not have memories of the eastern settlements from which to draw; the frontier environment was

[299] 17,057 white males under the age of sixteen in a total population of 73,677. U.S. Bureau of the Census, "Population of the United States as return at the First Census, by states: 1790," *First Census of the United States*, (Washington D.C.: Government Printing Office, 1908), 8, http://www2.census.gov/prod2/decennial/documents/1790g-02.pdf (accessed January 28, 2015).

[300] The 17,057 white males under sixteen constituted 53 percent of the total white male population (compared with 15,154 or 47 percent over the age of sixteen); applying the same ratios to other groups yields estimates of 15,315 white females under sixteen and 6,582 enslaved children. Ibid.

all they knew. During their childhood, these kids turned to the pioneer landscape as a playground, a pantry and a proving ground, but within a tense atmosphere in which danger seemed to lurk in the dark, still "wild" portions of the environment. Their early experience of the regional landscape as a source of both diversion and fear shaped their later interactions with the world around them.

Elements of each often infuse the same stories of childhood on the Kentucky frontier. Likely the most famous such story related the capture and rescue of Jemima Boone and the Callaway sisters, Elizabeth and Frances, during the summer of 1776.[301] "Betsy" was the oldest of the group at sixteen years and already engaged to be married, while "Fanny" was fourteen and Jemima was thirteen. Five native warriors, three Shawnees and two Cherokees, captured the three girls as they played in a canoe on the Kentucky River outside the new settlement of Boonesborough. The current pushed the girls too close to the northern bank of the river and a hunter leapt into the water and took control of the canoe. The girls' screams alerted the rest of the settlement as their captors hustled them away. The river, meant to serve as a defensive feature of the site, became an obstacle that delayed the party of pursuers led by Daniel Boone and Richard Callaway, the girls' fathers, and allowed the native war party a considerable head start. After a three-day chase in which Boone and the pioneers utilized their considerable knowledge of the regional environment to track and overtake the group, the white men liberated the girls and enjoyed a tearful reunion.

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[301] For a more detailed retelling of "one of the most famous incidents of Boone's life" see Faragher, *Daniel Boone: The Life and Legend of an American Pioneer,* Kindle location 2261-2294. Quote from location 2278.

Retellings turned the rescue into a piece of frontier lore and the tale served as a warning to later Kentucky children of potential dangers lurking in the landscape. As the son of Betsy Callaway, Alfred Henderson, recalled he "thought the yard was full of Indians" and became "afraid to go out of doors" after his mother related the story.[302] One generation further into the settlement project, a granddaughter of Jemima Boone remembered hearing "from the time I was 5 years old up to the age of 12, again and again about her being captured by the Indians."[303] Many observers, from the grown-up pioneer children themselves to modern historians, have noted the role such stories played to discourage children from taking unnecessary risks in the landscape. Yet the varied attractions of the regional environment that continued to lure young Kentuckians away from the relative safety of the forts and homesteads *despite* these tales, often escape direct discussion.

Jemima Boone and the Callaway girls could hardly have been unaware of the threat from native warriors since their existence centered on a fortified settlement designed to protect its residents from exactly that threat. Yet their youthful restlessness inside the dreary micro-landscape of Boonesborough still led them to seek diversion in the surrounding environment. Stories of childhood on the Kentucky frontier often follow this pattern of pleasurable use of the environment juxtaposed against violent encounters. For every dramatic episode of kidnapping and rescue retold in such stories, however,

[302] Alfred Henderson interview with Lyman C. Draper, February 12, 1853, DM 24C38, quoted in Faragher location 2282.
[303] ELC interview with Lyman C. Draper, March 31, 1885, DM 21C28, quoted in Faragher location 2284.

there were thousands of unrecorded examples of the children enjoying an afternoon playing on the river without incident. The possibility of danger in the landscape of frontier Kentucky was real, but remote. The potential for enjoyment in the local environment, on the other hand, was very real and imminently accessible. When children made the calculations, they often chose the more enjoyable option, seeking diversion where they could find it.

Thomas Metcalfe, for instance, recalled that when his family arrived in Kentucky in 1784 the dense stands of cane served as playgrounds to local children, but were "cautioned by their parents as to the danger from the Indians."[304] Beyond the psychological draw of the landscape as a place to play and allow one's imagination full reign, the ecology of the region also offered material enticements to children bold enough to venture away from the settlement. Like other residents of the pioneer Bluegrass, children utilized the landscape as a sort of pantry providing tasty morsels to supplement and vary their diets. Sarah Graham remembered a Sunday afternoon in the 1780s when "a parcel" of children ignored their parents' orders and wandered away from the station "to gather wild cherries and paw-paws" before becoming spooked at footprints they attributed to natives the children imagined were hiding in the cane and fled back to the settlement.[305] Graham recalled keeping the episode a secret from her parents out of her fear of their reaction to her rash behavior.

[304] Thomas Metcalfe interview *DC.*
[305] Sarah Graham interview *DC.*

William Moseby, an early resident at Scott's Station, for example, remembered that fishing became a favorite activity for the boys of the settlement despite the prohibition of the men. Moseby recalled an incident in which Daniel Scott led a group of boys in a scheme to catch fish and have them prepared by "old aunt Sarah," likely an enslaved woman at the Station, so that "pa wouldn't know." When the boys went out to check their lines, however, they heard the suspicious "halloo" of an owl, which they thought might actually be lurking native warriors. The boys' fear overcame their desire for fish and they ran back to the Station to confess breaking their fathers' rules.[306]

Not just a site for youthful rebellion or testing of limits, children and adolescents on the Kentucky frontier also experienced the landscape as a proving ground for their growing maturity. Adults looking back on their pioneer childhood frequently noted milestones in their lives marked by new modes of interaction with the environment around them. For some, such as Benjamin Allen, this meant adopting the role of hunter. Decades later, Allen reminisced about using his father's "small…shotgun" to bring down his first "big fat gobbler."[307] In the pioneer culture that placed a great emphasis on the masculinity of hunting and warfare such moments could represent important landmarks in a young man's life. John Gass, a twelve-year-old Boonesborough resident in 1776, proved his worth during the drama surrounding the Boone and Callaway girls' capture and rescue. Gass swam the rapid Kentucky River to retrieve the capsized canoe, thus enabling the party to cross the obstacle, and later made a nighttime journey from the

[306] William Moseby interview *DC*.
[307] Benjamin Allen interview *DC.*

men's encampment to Boonesborough and back to bring supplies.[308] Yet Gass did not qualify for full manhood and was sent back to the settlement the next morning while the men continued their pursuit.

In a similar way, children and adolescents made valuable contributions to the burgeoning agroecosystem without fully taking on the roles and responsibilities of adult settlers. Children might perform light agricultural labor, freeing adults to focus on more difficult or dangerous tasks. Jane Stevenson, for example, remembered milking cows while her father stood as an armed guard and was once caught outside the fort as native warriors arrived because she was fetching a pail of water.[309] Daniel Drake recalled less threatening opponents when he described his boyhood battles to protect his family's ripening corn crop against marauding squirrels and crows.[310] Yet, young Drake took his chores seriously and his pride at a job well done and a bit of humor came through decades later in his descriptions of prowling "the little field with the eye of a hunter—and the self importance of a sentinel on the ramparts of a fortress."[311] The florid imagery Drake employed hints at a feature of children's experience in the landscape even when they were nominally working: the local environment acted as a stage on which children could play and stretch their imaginations. That many children's play took on a martial air,

[308] Faragher, Kindle location 2298-2310.
[309] Jane Stevenson interview, *DC*.
[310] Daniel Drake and Emmet Field Horine, ed. *Pioneer Life in Kentucky, 1785-1800*. (New York: Schuman, 1948) 50-52. Drake's account also includes interesting descriptions of the role played by his "faithful [canine] ally" named "Old Lion."
[311] Ibid., 51.

particularly along the edges and outside of the "settled" segments of the landscape, fed into the tendency to view the "wild" parts of the environment as threatening.

Once settlers successfully harvested the crops, children also helped process the raw products of the new agroecosystem into more workable forms. Benjamin Allen, for example, remembered that soon after his family arrived from Virginia in 1789, he often "Prepared a little corn in the hand mill" and eventually learned to adjust the mill's settings to make his task easier, though it resulted in "coarser" meal. His "mother would scold" young Allen for taking shortcuts processing what was still a limited resource in Kentucky.[312] Allen seemed to relish hunting with his father more than milling corn for his mother. Perhaps because of this type of preference among young white males, grinding corn often fell to enslaved boys as at John Craig's station where "'a negro boy…turned it [the handmill] nearly half the time, the family was so large.'"[313] Like the labor of enslaved adults and white women, the work performed by children is often obscured in sources focused on warfare and hunting, yet children nonetheless completed essential tasks in the settlement process.

While children spent the vast majority of their time in the landscape engaged in everyday activities like work and play, the relatively rare occasions of violence and danger figured prominently in their perceptions and memories of the pioneer environment. In many cases, evidence for their more mundane chores only exists as an aside to a more dramatic tale, as in the above example where Jane Stevenson mentioned that she was

[312] Benjamin Allen interview, *DC.*
[313] John Dabney Shane interview with [a Woodford Co. informant]. Ca. 1840s, DM 11 CC 282 quoted in Perkins, Kindle location 820.

fetching water outside the station when a raiding party arrived. Stevenson survived her close call, but many children were not as fortunate. A former pioneer recalled "two poor children" who "were tomahawked" barely 100 yards from their fortified settlement when they were ambushed while out "to break some spice bushes."[314] Ironically, the measles-stricken siblings of the young victims were lucky to have been confined to the station. The image of their murdered kin after the natives "pretty nigh cut their heads off," however, likely stuck with the children as they grew up.[315] These types of stories contributed to a perception of the disputed portions of the landscape as suspect and dangerous.

Individuals from all groups experienced fear, of course, and it was a rational emotional response to the dangerous circumstances people found themselves in, but it seems probable that children experienced the terror of frontier life more acutely than did their elders. Children lived through the same traumatic events, but without the knowledge or context to process them as effectively. William Niblick, for example, remembered the aftermath of his neighbor's violent death when he held his "mother's apron, and heard the women crying; and…saw them bring in Wymore in a sheet that was all bloody, hanging on a pole…there seemed to be trouble and confusion."[316] In addition to these stark reminders that the wider landscape could be a place of violence and death, adults also drove the point home via stories and admonitions that sought to use fear to keep children safe. Daniel Drake recalled his mother putting him to bed with the warning to "'lie still and go to sleep, or the Shawnees will catch you'" after long days of talk

[314] William Clinkenbeard interview, *DC*.
[315] Ibid.
[316] William Niblick interview, *DC.*

centered on "Indian wars, midnight butcheries, captivities and horse stealings."[317] Unsurprisingly, "for several years afterward…nearly all [Drake's] troubled or vivid dreams included either Indians or snakes—the copper colored man & the copper headed snake."[318] The link in young Drake's mind between human and natural threats inhabiting the frontier landscape revealed the connection between fear and conflict. Only once the conflict and struggle for mastery was successfully concluded would the landscape be truly safe. This implied the settlers needed to both vanquish their native opponents and assert their mastery over the regional environment.

A similar perspective fueled both processes and each tapped into a deep-seated fear of the untamed landscape. Children on the Kentucky frontier took on these attitudes with their earliest experiences. They carried the views of the landscape formed during their childhoods forward into their maturity when they continued the process of deforestation and spreading the agroecosystem envisaged by their parents across an ever-greater portion of the regional environment. Viewed from this perspective, it makes perfect sense that a generation raised to fear the local cane breaks and other "wild" parts of the landscape would virtually wipe them out of central Kentucky.

White Men in the Frontier Landscape

The perspectives of white men color almost all of the evidence on the regional ecology during the pioneer period.[319] While the sources provide tantalizing glimpses of

[317] Drake, 26-28.
[318] Ibid, 28.
[319] Even the testimony of white women, such as the Jane Stevenson and Sarah Graham interviews referenced above, came through the filter of the white male interviewer, John Dabney Shane.

how other groups experienced the landscape, they speak more directly to how adult white males perceived and interacted with the environment. White men experienced the landscape in a wide variety of ways linked to their individual circumstances, yet important underlying assumptions united their perspectives. The belief that the land and its production should be owned by individuals was perhaps most significant, as discussed above. The closely related conception of the landscape as open for the taking and determination to establish control over it at the expense of rival native claimants was nearly universal among white male settlers. Less ideological, and more physical, similarities, such as hunting, fighting, and working, also united the landscape experiences of the vast majority of adult white men on the Kentucky frontier.

Despite the many important shared experiences, it would oversimplify reality to describe a white male experiential *landscape,* in the singular, during this period. An individual's relationship with the Kentucky environment depended on the context in which he experienced it, on his personal history, and his hopes and plans for the future. A distant speculator, his agent surveying on the ground, and the squatter without legal title clearing cane and making rudimentary improvements each experienced the landscape differently. Each brought different expectations to the environment and interacted with it in distinct ways based on their conceptions of their particular role in the landscape.

Men like Samuel Beall, the Virginia-based partner of John May, experienced the Kentucky environment exclusively through the words of others. To Beall, the landscape existed primarily in his mind and on paper as a commodity to be possessed, bought and

sold based on the descriptions of other men. The qualities of the land remained abstract to distant investors who never set foot in Kentucky, despite the descriptive correspondence of their agents. When John May wrote of procuring the "most valuable Bottoms; most of them in large Tracts" near likely navigation to the Ohio, the images brought to Beall's mind back in Virginia bore some relation to the actual landscape, but more to the financial value that landscape represented.[320] Yet, despite the fact that such elite white men had a limited and mediated experienced of the landscape they nonetheless played important parts in the drama of its transformation. The land fever induced by the direct experience of the Kentucky environment spread via the written word and infected distant speculators whose investment in claims and sponsorship of partners working on their behalf spurred the settlement project on the ground. They helped finance the costs associated with imposing a new ideological framework rooted in private ownership on the land.

Less abstractly, men like John May and his brother George, along with many other ambitious white men, journeyed to the Kentucky both to participate directly in the nascent land market and to facilitate the participation of others. Their experience of the landscape was direct and wide-ranging as they sought out choice parcels for themselves and their associates. The May brothers occupied a position between white men like Beall who invested in the land from afar and enslaved men like the "very faithful Negro Fellow" who May forced to invest in the settlement project with their sweat and blood, with no

[320] John May to Samuel Beall, April 29, 1780, Beall-Booth Papers, The Filson Historical Society, Louisville, Ky.

real hope for a return.[321] Their position within the hierarchy of settlement allowed them to operate both directly and indirectly on the landscape. They experienced broad swaths of the environment, evaluating the potential of the land according to ecological, geological and hydrological factors. For example, French agent Bodo Otto described Kentucky as "of an unequalled fertility" based on the quality of timber "in walnut, hickory, sugar maples, oak and other of the numberless species," and commented favorably on the system of rivers and wildlife. Taken as a whole, Otto's appraisal of Kentucky based his rosy projections of a thriving agricultural state on the environmental realities he encountered.

Men like John May traveled around the region scouting for locations exhibiting the ideal combination of factors based on his belief that such a spot would yield successful and profitable settlement. May's belief and the purpose of his travels influenced how he experienced the landscape and how he presented it to distant investors. Land agents like May might make some rudimentary improvements on tracts, such as a raising the outline of a rough cabin or sowing a few acres of corn, in order to establish a legal, but the depth of their agricultural labor in the landscape was often limited. They were as likely to have imposed on others the physical labor of clearing the land of native vegetation, establishing crops, building a station, and all the other tasks necessary to make the type of fundamental biological transformations needed to create the profitable agricultural system that elite white men envisioned.

[321] John May to Samuel Beall, March 15, 1780, Beall-Booth Papers.

Virginian authorities recognized the need to formalize the process for land acquisition in Kentucky early on and sought to give preference to resident settlers over distant speculators. The land law of 1779, drafted by George Mason under the direction of Thomas Jefferson, stipulated that 400 acres be sold to actual settlers, including current squatters, for a lower price than available to nonresidents. A further 1,000 acres could be obtained at a slightly higher price through an improvement preemption, which required the settler make certain physical “improvements” to the landscape. On their face, such requirements encouraged actual settlement and the initial labor necessary to earn an experiential knowledge of the local environment. In practice, such goals proved elusive. A settler had only to clear a small area and erect a "cabin,” often simply logs from the clearing arranged in a rectangle to waist height, in order to qualify for this type of preemption. Many “improvers” met these simple requirements with no intention of ever settling on the land and repeated the process using pseudonyms or the names of friends and relatives to amass large holdings. After the preemptions and claims made by actual settlers and reserved for soldiers, the law sold Kentucky land through treasury warrants at a relatively high rate of one hundred acres for forty shillings of Virginia currency, without any limits on amounts. The new system “invited speculation and concentration” as any depreciation in the value paper money lowered the relative cost of Kentucky land. More than twenty partnerships or individuals succeeded in John May’s dream of acquiring at least one hundred thousand acres.[322]

[322] Aron, 70 and John May to Samuel Beall, May 14, 1780, Beall-Booth Family Papers, The Filson Historical Society, Louisville, Kentucky.

The white hunters who made the earliest excursions into the region during the 1770s brought back tales of how suitable the environment was for settlement. The same hunters who had the longest familiarity with the landscape were often employed as surveyors commissioned to locate and register the claims of other land buyers, whether new arrivals to the region or speculators from east of the mountains. Daniel Boone famously played such a role, leveraging the experiential knowledge he had gained via his hunting activities toward the labor of locating and registering claims designed to commodify the landscape.[323] That his surveying frequently proved too vague to hold up in court speaks to the difficulty of the task amidst the chaotic events and environment.[324] Boone's history in Kentucky also reveals a great deal about how white male experiences of the landscape evolved as the transition from hunting ground to white settlement unfolded and how these changes could alienate men accustomed to the earlier relationship with the environment. Boone was, and is, celebrated as a hero of the trying ordeal entailed by the initial years of settlement and establishing the foothold for American settlement in Kentucky, yet he ultimately failed to find success in the new landscape defined by private ownership of land and imagined as the future site of thriving agricultural communities. Boone left Kentucky, relocating west in an experiential landscape more to his liking.

[323] See Faragher, *Daniel Boone: The Life and Legend of an American Pioneer* chapters 3-6 in particular. See also Aron, 77-78.
[324] By the 1790s, Boone's surveys were often challenged in court and claims he registered overturned.

Boone was just one famous example of a trend that encompassed thousands of would-be white male settlers in Kentucky's early years. Far more common were relatively anonymous poor white men who sought a better future on the frontier. Impoverished men, whose hopes for the future focused on securing a modest yet sufficient tract to carve out a life for themselves and their families, rather than amassing great acreages, often developed deep knowledge of small sections of the landscape. This knowledge sprang from their labor in a particular environment and placed white male laborers in much the same experiential landscape as that occupied by other groups working the land with their hands and relatively simple tools. Whether such knowledge was gained in the context of squatting or laboring in the hire of others, poor white men inhabited a paradoxical place in which their direct influence over and knowledge of a specific slice of the landscape often ultimately facilitated the control of other white men over it.

Of the poor white men who cast their lot in pioneer Kentucky, the early arrivals to the region during the 1770s and 1780s stood the best chance of capitalizing on the relative value of their labor in order to capture the land necessary to move themselves and their families out of poverty. As we saw in the case of the Clinkenbeard brothers who secured six acres in exchange for helping to clear a larger tract, a white man's labor could earn him a small slice of the landscape on which to establish himself.[325] However, the very same volatile circumstances that made the land abundant and labor scarce operated

[325] William Clinkenbeard interview, *DC*. One might also recall William Risk who remembered that "John Baker…gave [Billy Keeton] the hundred acres for clearing twenty," quote in Perkins, Kindle location 1547.

against striking out on one's own or investing too much labor in one particular spot. The danger from native attacks acted as a powerful motivator inducing settlers to cluster together, as we have seen, it also encouraged poor white men to continue renting land from one of the local landowners. Tenancy was an attractive option considering landlords often accepted payment solely in "improvements" to the property, which allowed renters to keep the entire agricultural production of the land. The uncertain, speculative atmosphere of the land market might also have contributed to the decisions of many poor white men to opt for the relative flexibility of wage labor in the expectation that they could acquire land once the situation stabilized. Whether poor white men chose to squat, seek legal claim to a small acreage, or labor in the employ of others, their working lives in the landscape entailed much the same experiences. In their immediate environment, they cleared native vegetation, erected rudimentary shelters and sowed small fields of crops. They also ventured more widely across the landscape, joining with other white men to hunt native wildlife and native warriors. Poor white men might not have achieved ownership of the land under the new system of private property as it emerged, but they nonetheless developed a deep relationship with the evolving regional environment.

In addition to differences based in class, the experiential landscapes of white men changed over time during the pioneer period. The relationship between people and the environment of central Kentucky evolved on both the individual and societal levels. While the chaotic situation in the region during the 1770s and 1780s offered opportunities for white men to rise from humble beginnings to respected and secure positions in the fledgling communities, by the 1790s, as settlement became more secure and legal

systems more fully elaborated, such avenues for advancement were increasingly restricted. Traveller Moses Austin noted both the dim prospects for would-be settlers in Kentucky and the continued stream of migrants by the latter period: "to say they are poor is but faintly express'g there Situtation…Ask these Pilgrims what they expect when they git to Kentuckey the Answer is Land" despite their lack of capital because they believe it to be "the Promis.d land…the goodly inheratence the Land of Milk and Honey" but when they arrive "at this Heaven in Idea what do they find? a goodly land I will allow but to them forbidden Land" where they are "exausted and worn down with distress and disappointment" and "Oblig.d to become hewers of wood and Drawers of water."[326] The occupations Austin chose for his representative impoverished white men revealed the type of fundamental working relationship such individuals were likely to experience with the regional landscape.[327]

While in many cases it took until the following generation for the plans of settler families to begin to bear fruit, if they ever did, others acted soon after their arrival to bring their vision for the landscape to life immediately. Whether the visions of individual white men came to fruition or not, the collective labor they engaged in and commanded on their behalf drew on their environmental experience as a guide for the future for the region. Considerations of geology and ecology dominated their perceptions of the land. They judged particular tracts according to their accessibility to waterways that would

[326] Moses Austin, 1796 quoted in Ellen Eslinger, *Running Mad for Kentucky: Frontier Travel Accounts* (Lexington: University Press of Kentucky, 2004), 179.
[327] My understanding of the changing meaning of class on the Kentucky frontier is influenced by Aron, *How the West was Lost*, Friend, *Kentucke's Frontiers*, and Perkins, *Border Life*.

facilitate transportation to regional rivers such as the Kentucky or Licking, which connected to the Ohio and ultimately to the Mississippi. John May, for example, firmly believed that "the Value of Land here will much depend on the Convenience of Navigation" which led him to covet land with easy access to the Ohio River.[328] May also suggested that he travel down river to New Orleans with a load of furs in order to test the difficulty of the journey and the market for frontier products. May and other white male speculators believed they could read the future in the regional geography as when he predicted that "the principal trading Town of the Western World" would naturally arise on a four thousand acre tract he proposed to purchase in 1780 because of its location near the Mississippi, Tennessee, Cumberland, Green and Wabash Rivers.[329]

The importance white men placed on such connections demonstrates the extent to which they imagined the new settlements as places waiting to be tied into the wider world despite the distances involved. The famous, or infamous, General James Wilkinson, whose name later became linked to the Aaron Burr-led conspiracy to lead the settlements west of the mountains to ally with Spain, provided a slightly later example of the ways in which some white men sought to tie Kentucky into world agricultural markets. In 1789, Wilkinson and his partner Peyton Short addressed "the Planters of the District of Kentucky" with a plan to receive tobacco on consignment to shipped in bulk from the Kentucky River to Louisville on the Ohio and on to New Orleans at the mouth of the Mississippi where it would either be sold or shipped to Europe depending on where "the

[328] John May to Samuel Beall, April 15, 1780, Beall-Booth Family Papers, Filson Historical Society, Louisville, Kentucky.
[329] John May to Samuel Beall, May 14, 1780.

best possible advantage" might be secured.[330] This "scheme" clearly demonstrates the intention some white men had to bring Kentucky into the flows of global commerce as quickly as they could accomplish. They experienced the regional landscape in a global context made coherent by commodification and the possibility of trade.

These underlying assumptions provided the framework in which white male settlers and speculators alike used environmental criteria to evaluate the quality and value of the land. For example, the survey of 8,000 acres of "first rate land" recorded for George Mason in 1786 included many environmental references. The tract lay "on [the] Ohio about 20 or 25 miles above the Green River," which promised to provide easy access to transportation. The piece of land started "two miles below the first Creek running into [the] Ohio on the South side above the mouth of Green River…at a large poplar Gum & White Oak, thence S[outh] 68 E[ast] 1484 poles to a Black oak Maple & Elm in…Marshy Land [then] N[orth] 22 E[ast] 890 poles to a large poplar, white oak, Black oak and two Beeches on a Branch N[orth] 68 W[est] 1484 poles and crossing a small Branch to a Hickory Sugar Tree, Sassafras & Ash on the Bank of the Ohio, thence down the same binding thereon to the Beginning."[331] White men utilized the most readily identifiable features in the environment in the process of parceling and claiming particular plots of

[330] James Wilkinson and Peyton Short, "Subscription of tobacco shipments to New Orleans" December 19, 1789, in Library of Congress online collection, *The First American West: The Ohio River Valley, 1750-1820*, from Reuben T. Durrett Collection on Kentucky and the Ohio River Valley. Miscellaneous Manuscripts. Special Collections Research Center, University of Chicago Library.

[331] "John May Land Entry Book," January 3, 1786, Beall-Booth Family Papers in Library of Congress online collection, *The First American West: The Ohio River Valley, 1750-1820*, from The Filson Historical Society, Louisville, Kentucky. A pole is a unit of measurement equal to approximately 5.5 yards. There are 320 poles in one mile.

land. White male settlers and speculators weighed the combination of geography and ecology when projecting the future regional landscape.

More than providing the lenses through which white men placed a financial value on particular slices of the landscape, environmental features dominated their experiences of the land. Legal documents testifying to the ownership of tracts during the period are full of references to rivers and creeks, to individual trees and stands of cane. White men quickly re-named these environmental features, often after themselves, as part of their process of asserting ownership of the landscape. A 1780 affidavit, for example, testified to the improvements, "raising a crop of corn," and preemption that Andrew Steele made four years earlier by which he claimed fourteen hundred acres and identified the tract as "lying about two miles up the Mouth of Steels Run waters of the South fork of Elkhorn to include a large Rocky Spring & his improvement."[332] The tendency to rely on waterways as boundaries and anchor points when conducting land surveys made a great deal of sense given the rapid rate of landscape change. While the courses of waterways did shift over time, often due to direct human manipulation, the changes did not approach those that occurred in living aspects of the landscape. The problems inherent in basing something permanent, such as legal title, on impermanent objects, such as elms or oaks, were compounded by the chaotic system of surveying in which multiple white men often used different environmental landmarks to claim the same tracts of land.

[332] Andrew Steele Papers, 1780-1796, in the Samuel M. Wilson vertical file collection 49w1 box 14 folder 37 at the University of Kentucky Special Collections Library.

While white men might come into conflict over a particular piece of the landscape, as the chaotic land market of early Kentucky and frequent lawsuits demonstrated, their underlying belief in the system of private property was not shaken. Similarly, their conviction of their right to hunt, broadly conceived, in that landscape was widely held. In different contexts, "hunting" might mean a number of different things from months-long excursions in pursuit of skins to daytrips to provide meat for the pioneer table. It might even be applied to scouting land for speculation or "hunting" native warriors deemed a threat to white settlement. Yet, there were broad similarities in how white men experienced the landscape during each of these activities. They travelled across the face of the land either on foot or on horseback, crisscrossing the region in search of their particular prey. This forced white men into close contact with the regional vegetation and animal life. They directly experienced the fertility of the environment across the whole of the landscape, rather than in the typically more limited spheres inhabited by women, children and black men. The broader purview of white men also implied a deeper reach for the environmental impacts of their actions. Women, children and black men certainly killed a few buffalo, for example, but white men wielded the guns that drove them to regional extinction.

Hunting generated environmental knowledge for white men, even as that environment underwent a rapid transformation. For example, a young Irishman out hunting with Daniel Trabue during the late 1770s learned a valuable lesson about the inadequacy of his prior agricultural experience as a guide for action in the Kentucky frontier when he had a close brush with an injured buffalo. Trabue shot a large male

buffalo while the group was travelling to a salt lick, but failed to kill the animal. When he prepared to shoot it again, the newly arrived Irishman, who had never seen a buffalo before, told the rest of the group to stand back while he went to finish it off. However, when he jumped "at him with his tomerhock…strikeing him in the forehead…he could not hurt him, the wool and mud and skill and skull was all so thick it would not Do" and the bull lurched back to his feet and began chasing the frightened young man through the woods. One of his companions shot the buffalo dead while the Irishman hid behind a tree. The man became the butt of the crew's jokes, until he left saying "he would not go with such fools as these boys."[333] Learning the landscape was an uneven process and the necessary skills changed over time, slaughtering a buffalo, for example, became less important as regional populations dwindled, but hunting remained a favorite activity among white male Kentuckians.

One important outcome of the diverse white male experiences in the frontier environment was a widely-held belief that statehood could facilitate their projects. The winding political journey Kentucky underwent to become a state has occupied generations of historians, yet the fundamental importance of environmental and geographical factors rarely figures prominently in such discussions.[334] In fact, the story of

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[333] Trabue, 72.

[334] See for example Lowell H. Harrison and James C. Klotter, eds. *A New History of Kentucky* (Lexington: University Press of Kentucky, 1997) "The Road to Statehood" or Thomas D. Clark, *A History of Kentucky* (New York: Prentice-Hall, 1937), "A Struggle for Independence" or even John Bradford's "Notes on Kentucky" such as "'A Melancholy Experience at Statemaking,'" March 9, 1827 and "Setting the Date for Statehood," May 25, 1827 in *Kentucky Gazette* reprinted in *The Voice on the Frontier: John Bradford's Notes on Kentucky*, ed. Thomas D. Clark, (Lexington: University Press of Kentucky, 1993).

separation from Virginia has most often been reduced to the perceived need for greater military flexibility to combat natives across the Ohio and questions of political rights between white men. Yet this understanding overlooks the important ways in which the demands of the agroecosystem created the conditions in which many white Kentucky men came to believe that statehood was their only option. The particular brand of agriculture they practiced necessitated they find an outlet for their goods in order to demonstrate the landscape could function as they imagined it would. This did mean an emphasis on protecting the frontier from raids across the Ohio, but equally important was securing access to the Mississippi, via the Ohio, and hence to world markets. Rather than looking back toward the eastern settlements for the future, white male Kentuckians' position in their nascent agroecosystem oriented their view west and south and encouraged them to maximize their bargaining power to maintain open trade on the Mississippi, which geography determined to be the easiest access to the wider world. The future success of their agricultural system on which the entire settlement project was based hinged on commercial access white male Kentuckians believed could best be secured if their region became a state capable of advancing its own interests at the federal level, rather than remaining an appendage of Virginia. As the experiences of the Kentucky frontier moved the residents to press for statehood, the decisions white men made regarding their system of government and agriculture held important implications for the future of the state's landscape.

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Section Two:

Bluegrass Landscapes, 1792-1830: Introduction

To the tens of thousands of American settlers in Kentucky by 1790, important questions remained unanswered for the success of their agricultural project. Despite their progress in transforming a contested frontier into an increasingly settled landscape, subject to Euro-American property and cultivation regimes, many white Kentuckians yearned to coax greater rewards from the Bluegrass soil, but confronted significant obstacles. The chapters of this section explore the wide and varied influences that helped transform the Bluegrass environment from the final decade of the eighteenth century through the first three of the nineteenth. Regional ecology evolved tremendously during the era as Kentuckians poured huge amounts of labor into the project of establishing and refining a profitable agricultural system. The viability of their operations depended on the productive capacity of the landscape, but also upon the wider political, economic, and social context. Sensitive to these connections, the architects of the Bluegrass agroecosystem attempted to steer developments in the direction they thought most likely to enhance their prospects. In short, the history of the central Kentucky agricultural landscape cannot be separated from seemingly non-agricultural events and trends during these years. Indeed, examining these topics through an agroecological lens throws both environmental and human histories into sharper relief.

Chapter five explores the role that the perceived prerequisites to a successful agricultural system played in both the Kentucky statehood movement and the on-going

demands that the national government secure commercial access to the Mississippi River and the port of New Orleans. It also addresses the constitutional conventions that crafted the first two state governments and the importance of agroecological factors in determining the outcome of debates on pivotal questions including whether or not to allow slavery in the new commonwealth. Chapter six brings the focus back onto the accelerating transformation of the central Kentucky environment and the elaboration of the agricultural system that coincided with the arrival of thousands of new settlers seeking their fortunes in the Bluegrass. Chapter seven probes the connections between commerce, industry, and local agriculture, highlighting their interdependence. In an extended look at early statehood hemp culture, it illustrates the ways the fiber blurred the distinctions between cultivator and manufacturer and knit both into an Atlantic web of economic connections. By 1830, the Bluegrass region bore little resemblance to the landscape pioneers and natives fought over a half century earlier because of the way the dialectical relationship played out between the agroeocosystem and political, economic, and social factors in the 1790s and first decades of the nineteenth century.

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Chapter Five: Statehood and Mississippi River Access

The agroecosystem of central Kentucky, indeed all agroecosystems, evolved under a shifting array of forces. In this it resembled the populations of organisms that inhabited it. In the agroecosystem as a whole, each farm functioned as an individual within the broader population. The farm essentially reproduced itself each year through the cycle of the seasons, but each cycle also saw some level of mutation or change in

the agroecosystem's overall composition. Major mutations included obvious, large-scale transformations the clearing of forest to create fields or the elimination of buffalo, while minor changes such as substituting wheat for tobacco might go virtually unnoticed, but each contributed to the makeup of the agroecosystem. Rather than the mutations occurring naturally in the process of DNA replication, they stemmed from the conscious choices and actions of the human components of the system, allowing for rapid change between generations. A reallocation of resources from, say, an emphasis on growing wheat to a focus on raising sheep, might be achieved in a single year by a farmer with access to sufficient capital and labor, whereas a species' adaptation to changing circumstances takes place over the course of generations and is typically measured in centuries rather than seasons. The agroecological mutations that persisted and spread across the countryside were those that proved useful in securing the human benefits promised by the system, whether measured in dollars and cents or whichever attributes defined the "good life" for a particular Kentuckian. In addition to the broad, natural forces like soil and weather that created the parameters of the agroecosystem, things like the market and the nutritional demands of the human body acted as evolutionary pressures shaping the transformation of the landscape. The agroecosystem nimbly responded to the changing circumstances, though not without individual casualties as some mutations proved maladaptive to the Bluegrass environment. Any exploration of the transformation of the central Kentucky landscape would be incomplete without addressing the broader context shaping developments on the ground.

Section One: Agroecological Motivations for Statehood

Kentucky took a long and difficult path to statehood.[335] The Revolutionary and then Constitutional contexts complicated a process that might have proven trying even under the best circumstances. Yet, the new white male residents of Kentucky, particularly their political leaders, nonetheless doggedly pursued their goal of separation from Virginia for over a decade. They insisted that this fundamental question could not wait until other matters were resolved; indeed, many Kentuckians believed that it was only through their own commonwealth, independent from their parent state, that they could adequately address many of the problems their fledgling society faced. In large measure, the requirements of the agroecosystem envisioned by the white settlers shaped their perceptions of the correct political path forward. The type of agriculture white men dreamed of seemed to demand the transplanted civilization meet certain prerequisites, such as the legal framework for private property, the protection of slavery and secure connections to wider markets.

Physical control over access to the land, the unchallenged ability to utilize the environment as the proprietor saw fit, in short, the imposition of a regime of private property, formed the most basic requirement of their agricultural project. Even absentee land speculation required some semblance or promise of control over the landscape in order for the commodity to justify its price on the market. But this necessary condition seemed elusive to Kentucky pioneers during the early years, tenuous at best, and liable to shocks and reverses according to the tides of the frontier

[335] See Lowell Harrison, *Kentucky's Road to Statehood* (Lexington: University Press of Kentucky, 1992) for a good overview of the convoluted process by which Kentucky left Virginia and joined the U.S. as the fifteenth state.

war, as we have seen. Kentuckians' belief that their status as an appendage of Virginia hamstrung their military efforts to secure their right to the land acted as an early and oft-repeated justification for separation.

Already in 1776, George Rogers Clark warned that Kentucky might be forced "to seek protection else whare" if Virginia continued to drag its feet in supplying the frontier with the gunpowder to defend themselves from Indian attack.[336] He reminded the Assembly that "if a Cuntrey was not worth protecting it was not worth Claiming" and implied some other power would take up the responsibility if Virginia proved unwilling.[337] While the Old Dominion answered this call for supplies, it was only the beginning of the tension between Kentucky and Virginia over the best approach to winning the frontier war. Understandably concerned with the ongoing Revolutionary War, the Virginia government did not rank the troubles of a few hundred or a thousand of distant settlers very high on their priority list; Kentucky pioneers were formally organized into militia companies for defense and received material support from the state, if not with the frequency or in the amounts they might have preferred. Equally problematic from the Kentuckians point of view was the strategy of defending an impossibly long border in such a thinly populated region; they preferred an offensive strategy to wreck havoc on natives' across the Ohio River, like the raid led by George Rogers Clark in 1780 discussed in the previous chapter. Kentucky's military leadership

[336] James Alton James, ed., *George Rogers Clark Papers 1771-1781,* Volume 1 (Springfield: Illinois State Historical Library, 1912), 213.
[337] Ibid.

chafed under the direction from Richmond and reflected a widely-held belief that the mother state paid little attention to the well-being of her most westerly possession.

Living in a landscape only recently and precariously wrest from "wilderness," the settlers understood the infeasibility of a defensive strategy that left them pent up in fortified settlements whenever native warriors ventured into the area as a way of winning the conflict in the long term. They would be unable to fully implement their agricultural project without secure control over the land, and a purely defensive strategy could not give them the level of security they required. The weakness of their own agricultural system to attack, however, clearly demonstrated the viability of the offensive to strike crippling blows to struggling groups. Many early Kentuckians believed that only statehood would allow them the leeway to pursue the military strategy that could decisively decide the conflict in their favor. Military concerns feature prominently in the early petitions from the district of Kentucky to the Virginia General Assembly.

In 1782, the petitioners reminded their legislature that they had come "through a Wilderness infested with the most Savage and cruel Enemies, combating with the greatest Difficulties, and yet continue to be Invaded by the Merciless Banditty, continually Harrased, confin'd to stations, and even debarr'd from applying the necessary means for the support of their Families."[338] The two possible solutions the Kentuckians proposed included either that the General Assembly grant them "a power sufficient for…the Controul and Management of all Civil and Military affairs in this

[338] Robertson, James Rood ed., *Petitions of the Early Inhabitants of Kentucky to the General Assembly of Virginia, 1769 to 1792*. (Louisville: Filson Club Publications, 1914) 62-63.

Country" or that they be granted "a Separation" and an "Intercession with the Honorable…Continental Congress for their Incorporation."[339] Later in the decade, an advocate of separation outlined what he saw as the military drawback of connection to Virginia; "It subjects you to the incursions of a savage enemy, who after murdering your friends, and destroying your property, fly out of the limits of the District and are protected by the law," which "forbid your taking any effectual measures against them. They forbid your marching an expedition into their Country. Considering their mode of warfare, what is this in fact, but to bid you sit still, and receive the stroke of the Tommahawk."[340] Kentuckians "were convinced that their best protection lay in preemptive raids against the hostile tribes…But offensive action outside the state's boundaries could not be conducted without prior permission from state authorities," which could not "be obtained in time to be effective."[341] Statehood promised to provide the authority to take the initiative against their enemies and more effectively protect their delicate new agroecosystem, many features of which constituted the "property" being destroyed by natives.

In 1785 when Kentuckians again appealed for more local control or separation, they maintained they still expected to leave Virginia with "no objection" when it appeared to "their mutual advantage to separate," but requested "protection" in the meantime.[342] The subsequent petition requested "an Act of Seperation" more forcefully

[339] Ibid., 64-65.
[340] "To The Good People of Kentucke," *Kentucke Gazette*, August 18, 1787.
[341] Harrison, *Kentucky's Road to Statehood*,15.
[342] Robertson, 79.

and laid out their justifications more completely.[343] Their firsthand experience of what the Kentuckians viewed as a besieged and struggling agricultural settlement gave them a different set of concerns than those of the Virginians east of the mountains. The petitioners, "chosen at free Elections…by the Freemen" of Kentucky, thought it would be "preposterous" to re-list the "expanding evils, and irremediable grievances" felt by the whole population as a result of their continued attachment to Virginia, so common and widely known were the westerners' complaints.[344] Yet they nonetheless found space to dryly mention the "leisurely" approach the "Eastern parts of the Commonwealth" had thus far taken to the question and allude to the provision for this type of separation included in the Virginia Constitution of 1776, a document, they pointed out, Kentuckians had died defending.[345]

The "two hundred miles…of a mountainous desart…always dangerous, and passable only at particular seasons" that separated the western settlements from the state capital compounded the petitioners' urgency.[346] Others elaborated on the impediments posed by the long journey over the Wilderness Trail or down the Ohio. One of the first newspapers printed in Kentucky in 1787 made the case that as "Liberal, and benevolent as Virginia may be…it is not in her power" to solve these problems since

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[343] Ibid.
[344] Ibid., 79-80.
[345] Ibid., 80. Harrison argued "Most Virginians, including those already living in Kentucky, believed that the transmontane would inevitably break away from the parent state" because of the provision in the state constitution of 1776. Harrison, *Kentucky's Road to Statehood,* 4.
[346] Ibid., 81. "Desert" (or "desart" as the petitioners wrote) would have meant an uninhabited and inhospitable region, rather than a dry area, in this usage.

"She hath not faith to remove mountains! She cannot render a barren wilderness habitable! She cannot lessen the distance between Danville and Richmond."[347] Most of the specifics the author enumerated were based on distance; it prevented the "timely application to the supreme executive for aid" in an emergency or when requesting a pardon, made the "execution of the Laws feeble, delays Justice…relaxes the springs of Government" and left the "unfortunate poor, and men of mediocrity…compleatly in the power of the oppulent" since only the wealthy could afford to challenge legal decisions that went against them in the Virginia state court of appeals.[348] The "hand of nature" that created the fertile Bluegrass region over five hundred miles from the state capital in Richmond and raised a mountain range in between seemed to dictate separation.[349] The fundamental obstacles that geography posed to timely and efficient communication and governance formed a keystone in Kentuckians justifications for statehood; they argued that the land itself preordained their independence from Virginia.

The waters of the west also appeared to flow in the direction of Kentucky's separation. That the rivers of the region drained to the west and ultimately to the south via the Mississippi was an obvious factor in the region's isolation since it made traveling east or north comparatively expensive, but it also encouraged Kentuckians to orient their hopes for the future in those directions. A reliable and cost effective route to a market was an absolute necessity for agricultural settlers producing bulky surpluses that were much more difficult to transport than the skins of the earlier Long Hunters, for

[347] "To The Good People of Kentucke," *Kentucke Gazette*, August 18, 1787.
[348] Ibid.
[349] Ibid.

example. When “A Farmer” posed a series of questions in the *Kentucke Gazette* for citizens to consider as they debated separation, many touched on river access. He wondered how they could pay taxes to support any government, whether federal, Virginian or Kentuckian, "without a free trade of the river Mississippi?" and what “probable prospects can a new State have of obtaining a trade down the Mississippi; and what prfits [sic] can we derive from such a trade?"[350] He implied that access to the Mississippi might become even more difficult to secure without the backing of the powerful voice of Virginia arguing on Kentucky’s behalf. While these leading questions posed to the proponents of separation might seem to throw cold water on the idea, “A Farmer” seemed equally skeptical of remaining attached to Virginia. He asked opponents of the split “How can we take any steps toward promoting and regulating a profitable trade down and up the rivers?” in the current circumstances and “will the Assembly regulate such trade to our advantage?"[351] How best to secure access to trade on the Mississippi remained an open and controversial question into the nineteenth century, as we shall see, but virtually all Kentuckians agreed that it was a vital condition to the future success of the regional agroecosystem.

The issue of separation caused more substantial divisions, but an increasing majority looked forward to statehood as an opportunity to address obstacles facing society. Significantly, these obstacles emerged in light of the specific type of agricultural

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[350] “A Farmer,” “To the Printer of the *Kentucke Gazette*,” *Kentucke Gazette*, August 18, 1787.

[351] Ibid. See also “A Kentuckean” outlining the reasons that only statehood would allow for an adequate defense of the region’s borders and the ability to negotiate for access to Mississippi River trade. Ibid., September 15, 1787.

system the settlers hoped to erect. Historian Lowell Harrison offered the useful reminder that "most Kentuckians were more interested in making a living than debating political changes" and often only paid attention to the issue when "stirred by some unusual event such as the closing of the Mississippi River to American traffic or a successful Indian raid."[352] This suggests that it was the practical considerations of the agroecosystem, meaning the security to work one's land and market one's surplus, that motivated most folks to support separation, rather than abstract ideological justifications. Much as the type of land use envisioned by the American settlers caused conflicts with native hunters, the agroecosystem designed by the pioneers seemed to dictate political separation from Virginia. In ten statewide conventions held in Danville over the course of eight years, Kentucky demonstrated a political persistence that eventually secured the authority to establish its own state government to support its citizens' agroecological aspirations.

Agroecological Constitutions

The constitution of 1792 reflected the views of the political leadership of the new state and the document they produced influenced the development of both the agricultural system and the broader landscape in which it was embedded. Much of the analysis of this convention and the government it established has focused controversial topics that sparked debate amongst the delegates, but to understand its significance for the landscape, it is also important to examine aspects of the constitution that enjoyed almost universal approval. For example, all of the representatives agreed that the

[352] Harrison, *Kentucky's Road*, 21.

government should protect property rights and that these rights could include private ownership of the land itself. They also agreed that the government should represent the citizens of the new state and protect their interests. The men tasked with shaping Kentucky's constitution also embraced many of the structural and procedural elements of government that had been adopted by eastern states.[353] Of course, tensions existed over exactly how to define some of the terms included in these widely held beliefs about the role of government, but the broad contours of consensus provided the framework within which the agricultural system was constructed.

Within the framework of agreement, debates over slavery held the most significance for the state's future agriculture. To many whites, the institution had proven its utility in the years since initial settlement and begun to be entrenched as an essential feature in the agroecosystem, as we have seen in previous chapters, yet some white Kentuckians hoped the constitutional convention would provide an opportunity to check and reverse slavery's influence. Based solely on their rhetoric would be easy to overstate the antislavery convictions of the so-called "radical" faction, especially considering the fact that twelve of the sixteen opponents of the protections eventually provided to slavery in Article IX held people in bondage themselves and that their

[353] A comparison of the 1792 constitution and contemporary documents revealed that "almost three fourths of its sections were taken from the Pennsylvania constitution of 1790, many having been copied with only the change of a few words necessary to adapt them to the local situation. This was especially true of the articles containing the bill of rights and the provisions for executive and legislative departments. Seventy-five of the 107 sections of the document were so similar as to justify the statement that Pennsylvania's constitution was used as a model." John D. Barnhart, "Frontiersmen and Planters in the Formation of Kentucky" *The Journal of Southern History,* February 1941, 34.

boldest proposals centered on endorsing the principle of gradual emancipation at some future, undetermined date.[354] Baring these qualifications in mind, the group that coalesced around Presbyterian Reverend David Rice nonetheless represented a different vision for the future of the state.[355] Most commentators, both contemporary and subsequent, have tended to focus on the religious and moral aspects of Rice's critique, and with good reason since these beliefs formed much of the substance and tone of his argument, but this fixation can obscure the practical concerns of the agricultural constituencies that sent men like Rice to the constitutional convention.

Non-elite white men, recently arrived from the eastern states, often harbored suspicions of what they saw as a new aristocracy of the tidewater variety rising in their midst. Having failed to secure a satisfactory place in the agricultural systems east of the mountains, they sought to erect one more to their liking in the west. Rice gave voice to their fears that a government designed to protect the interests of slaveholders would do so at their expense. He argued that the "prosperity of a country depends upon the industry of its inhabitants; idleness will produce poverty; and when slavery becomes common, industry sinks into disgrace. To labour, is to *slave*; to work to *work like a Negro*: and this is disgraceful; it levels us with the meanest of the species; it sits hard upon the mind; it cannot be patiently borne. Youth are hereby tempted to idleness, and

[354] Barnhart, 23 and Harrison, *Kentucky's Road*, 109.
[355] For a brief biography of Rice see Vernon P. Martin "Father Rice, the Preacher Who Followed the Frontier" *Filson Club History Quarterly* vol. 29 (1955) 324-330.

drawn into other vices."[356] Rather than a tool to be used in the improvement and prosperity of the state, Rice argued that it would induce poverty and idleness amongst the white population. Instead of developing the landscape, slavery would produce a stunted agricultural system that only benefitted a minority of white men. In a short time, Rice believed this state of affairs would cause Kentucky to "spew out its white inhabitants and be peopled with Slave-holders, their Slaves," and overseers.[357] Taking the course of emancipation, however, would "invite thousand of honest industrious citizens" while discouraging "only a few who wish to live at the expense of others without making them a reasonable satisfaction" in wages, as one man argued.[358] This line of reasoning revealed the agroecological stakes for white men in constitutional debates over slavery; ultimately such conflicts boiled down to disagreements over the purpose of the system: should it benefit all white men or primarily those who already wielded economic and social clout?

The arguments Rice put forth also suggested that a reliance on slave labor rendered agricultural systems inherently unstable. He alluded to the on-going Haitian revolution, calling on the delegates to turn their "eyes to the West-Indies" to see "the melancholy effects" of an economy based on slavery "written in the blood of thousands."[359] Opponents of the institution based their instance that slavery was

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[356] David Rice, *A Kentucky Protest Against Slavery: Slavery Inconsistent with Justice and Good Policy, Proved by a Speech, Delivered in the Convention, Held at Danville, Kentucky, By the Rev. David Rice* (New York: Rebellion Record, 1812), 7.
[357] Barnhart, 28-29.
[358] "Brutus Senr" *Kentucky Gazette,* March 10, 1792
[359] Rice, 6. Interestingly, Rice went on to strike a relatively positive tone when describing

"inconsistent with…good policy" on their belief that it added unnecessary volatility to the agroecosystem by making "a perpetual war" on "a growing body of people among us" who had no vested interest in either the agricultural system or the government that it supported.[360] The Reverend Rice returned to his moral theme toward the end of his appeal to the convention to commit the constitution to the principle of emancipation in order to avoid the "sin" of slavery and the "curse" that followed it. Yet, if we follow his ominous prediction that "National vices will be punished with national calamities" through to the implications it held for his contemporaries, this warning was ultimately linked to the fate of their agroecosystem: build it on a faulty foundation reliant upon slave labor for the benefit of a minority of white men, and it was destined for collapse.[361] Taking the wise path of gradual emancipation, however, would create a stable agroecosystem in which white men could flourish.

Most delegates disagreed with Rice and his antislavery associates. Twenty-six of the forty-two representatives in Danville voted against removing the protections provided to the institution of slavery in Article 9.[362] This explicitly denied the legislature the authority to emancipate any slaves without fully compensating their consenting owner or from baring future immigration of slaveholders into the state.[363] Proponents

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"the sable, let me say, the brave sons of Africa engaged in a noble conflict with their inveterate foes. There you may see thousands fired with a generous resentment of the greatest injuries, and bravely sacrificing their lives on the altar of liberty."

[360] Ibid.

[361] Ibid., 12-13.

[362] "Constitutional Convention Journal, 1788-1792," MSS 145, Digital Collections, Kentucky Historical Society, Frankfort, Kentucky.

[363] "A Constitution or Form of Government for the State of Kentucky April 19, 1792," Article 9, MSS 145, Digital Collections, Kentucky Historical Society, Frankfort, Kentucky.

of these protections justified their position in a variety of ways, many of which were closely linked to their vision for the future of the agroecosystem. George Nicholas, long "hailed as 'the father of the 1792 constitution,'" represented the views of the majority of the delegates.[364] Nicholas, a recent arrival to the region, held definitive views on his new home's bright future and argued that the settlers' shared vision of a prosperous landscape was incompatible with widespread emancipation of enslaved Kentuckians or with any attempt to weaken the institution. His background as an officer during the Revolution, member of the Virginia legislature and delegate to the Old Dominion's convention to ratify the federal Constitution provided Nicholas with political status and experience unmatched by other representatives meeting in Danville in 1792.[365]

Nicholas wielded his considerable political acumen in defense of the agroecological system already taking root in central Kentucky. While Nicholas and his allies stopped well short of labeling slavery a positive good, they nonetheless leveled an array of arguments against any suggestion that Kentucky should place itself on the path toward emancipation. Nicholas cited historical and Biblical precedents, calculated the financial impossibility of compensated emancipation, and raised the specter of widespread miscegenation.[366] He also pointed out uncomfortable conclusions of applying the moral logic that motivated antislavery voices to broader questions facing

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[364] Harrison, *Kentucky's Road*, 97.
[365] John E. Kleber, ed., "George Nicholas," in *The Kentucky Encyclopedia* (Lexington: University Press of Kentucky, 1992), 680-681. For more on Nicholas' political pedigree and outlook see Huntley Dupre, "Political Ideas of George Nicholas" *Register of the Kentucky State Historical Society* Vol. 39, No. 128, (July 1941), 201-223.
[366] Harrison, *Road to Statehood*, 109-110.

the fledgling society: if black Kentuckians *were* the whites equals, then the whole convention was illegal since the enslaved had no voice in the proceedings and that if slaves could rightly claim freedom, then the Indians could rightly claim Kentucky (and all of the Americas).[367] By presenting the issue as a (false) binary with options consisting of either keeping slavery or denouncing their own authority and right to control the landscape, Harrison undermined the antislavery case.[368] He claimed that envy acted as the primary motivator of most opponents of the institution; bitter at their own failures, some non-slaveholders sought to bring their more successful neighbors down to their level.[369] Finally, he maintained that slavery was essential to the state's economy and to attract the prosperous settlers that would lead Kentucky to fulfill its agricultural potential.[370] If the government foolishly forced emancipation on the state, conservatives argued it would deprive itself "a great source of revenue" via the tax on slaves, essentially a mechanism by which the state shared in the profits of slave labor, and "divert the course of emigration" since "no man who has a negro," the very white men they hoped to attract, would move to Kentucky if it meant "the parting with his negroes."[371]

The protection of property rights, which formed the keystone of the agroecosystem then under construction as we have seen, also lay at the core of the rationale of slavery's defenders. They stressed the fact that the enabling act from

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[367] Ibid.
[368] Ibid.
[369] Ibid.
[370] Ibid.
[371] "Little Brutus" *Kentucky Gazette,* December 24, 1791.

Virginia required that they respect existing Virginian property rights and it would therefore overstep their mandate to take any action against slavery, a legal species of property under the Old Dominion's law. More fundamentally, conservative defenders of slavery worried that any move to curtail their ownership of people might soon shift to a challenge of their right to the land itself. If an envious majority could seize one type of property via a legislative power grab, what was to prevent them from moving on to the next, if the first left them unsatisfied? Attacks on slavery were construed by conservative slaveholders as the opening salvos in an assault on the agricultural and economic system they directed. From their perspective, the practical benefits of slave labor to the enslaver were readily apparent and the overall labor requirements of the agroecosystem seemed to demand its continuation. As one defender of slavery noted in the *Kentucky Gazette,* a farmer needed only consider "for a moment…the price of labor" to recognize "the necessity of [enslaved] labourers."[372] Indeed, the advantages were so great that a majority of the nominal *opponents* of the institution were themselves slaveholders who had left black men and women behind to cultivate their slice of the landscape. The obvious hypocrisy left the slaveholding antislavery men as easy targets for institution's champions.[373] Even after the victory of Nicholas and his allies evident in

[372] "Little Brutus," *Kentucky Gazette*, December 24, 1791.

[373] The conservative slaveholders pressed their advantage in Article 1, Section 24, which barred active ministers from serving in the state General Assembly, presumably blocking the antislavery factions most prominent and persuasive members from seeking redress through the legislature. "A Constitution or Form of Government for the State of Kentucky April 19, 1792," Article 1, Section 24, MSS 145, Digital Collections, Kentucky Historical Society, Frankfort, Kentucky. Seven active ministers served as delegates to the convention, including David Rice, and each identified with the moral case against slavery. Harrison, *Road to Statehood*, 103-104.

Article 9 however, sufficient tension over the issue remained and the topic again generated controversy and debate when the commonwealth held a convention to draft its second constitution in 1799, to be discussed further below. One possible silver lining in the seemingly resounding defeat for slavery's opponents could be found in fact that the first constitution provided universal suffrage for "all free male citizens of the age of twenty-one years."[374] This might have given those who viewed slavery as detrimental to their prospects hope that they might fair better when the political contest over the direction of the agroecosystem arose.[375]

If the emancipationists had carried the day in Danville in 1792, it seems unlikely that John Breckinridge would have relocated to Lexington the following year.[376] The new constitution promised a stable platform upon which to erect exactly the type of profitable agricultural enterprise envisioned by planters disillusioned with their prospects east of the mountains. Breckinridge embodied many of the characteristics that men like Nicholas hoped would mark the new state; an elite Virginian attorney, planter, and politician, Breckinridge pinned his hopes for future prosperity on the fertile

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[374] "A Constitution or Form of Government for the State of Kentucky April 19, 1792," Article 3, Section 1, MSS 145, Digital Collections, Kentucky Historical Society, Frankfort, Kentucky.

[375] They might also have anticipated that they might take up the cause again relatively soon since Article 11, Section 1 outlined the steps by which the citizens might call another convention "to amend or change this constitution" starting in 1797.

[376] Breckinridge's fame, both contemporary and subsequent, often centers on his involvement with the Kentucky Resolutions of 1798-1799 in which he collaborated with Thomas Jefferson to denounce the Alien and Sedition Acts of the Adams administration as unconstitutional. See Harrison, *Breckinridge*, "Mover of Resolutions," 72-93. Yet, moving beyond this contribution demonstrates his life, and particularly the rich source material he generated and saved, acts as a valuable window on the changes sweeping through central Kentucky during the 1790s and 1800s.

fields (legal, agricultural, and political) of Kentucky. According to his biographer, he represented "the second generation pioneer who developed the land after it had been won by the frontiersman."[377] His experience in the Kentucky landscape also provides a revealing view of the forces and techniques beginning to transform both agriculture and the broader environment across the Bluegrass.

The relocation of the Breckinridge household to Kentucky occurred only after deliberate consideration and in the context of his personal projections for the agroecosystem of each region in the near future. Breckinridge's eye wandered west of his home in part due to a "push" in the form of the struggles of his plantation in Albermarle County, which during the 1780s "seems to have produced little beyond the subsistence level," of traditional crops including corn, oats and tobacco, with a family garden and some fruit species.[378] The difficulty of securing a satisfactory income at the crowded Virginia bar, coupled with reports from family of the unceasing litigation over land titles Kentucky, also contributed to Breckinridge's calculations.[379]

Updates on the legal environment in the region shared space with glowing descriptions of the physical landscape in Breckinridge's correspondence with friends and kin residing west of the mountains. As early as 1783, men in the Breckinridge family, including John's brothers William and James, moved to Kentucky and they soon wrote back in hopes of enticing more of the clan to join them in the "rich and extensive

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[377] Lowell H. Harrison, *John Breckinridge: Jeffersonian Republican* (Louisville: Filson Club Publications, 1969), 22.
[378] Ibid*,* 23.
[379] Ibid, 24-27.

country."[380] Others found themselves at a loss for words to describe the landscape, resorting to the popular phrase that "the Kingdom of Heaven…is a mere Kentucky of a place."[381] Some opted to ground their accounts in specifics in order to lend legitimacy to their claims as when a friend wrote that "female Animals of every sort are very prolifick, its frequent for ewes to bear 3 Lambs at a time, & women & cows to have Twins at a time."[382] Subjected to a steady stream of such reports over the course of years, Breckinridge eventually chose to appraise their accuracy in person.

By the time he first visited in 1789, however, he already owned several tracts of land in his future home state. The involvement of the Breckinridge men in Kentucky land speculation stretched back nearly a decade and John had amassed title to nearly 30,000 acres by the time he physically arrived on the scene. He worked in partnership with his brothers, acting as the eastern agent procuring military and treasury land warrants to be sent west to be located and entered in their names. [383] The taste for playing the land market stayed with Breckinridge, as he continued to acquire land with an eye to future sale for the rest of his life, both in Kentucky and further west.[384] He kept his land

[380] William Breckinridge to John Breckinridge, September 5, 1784, Breckinridge Manuscript Collection, Library of Congress, Division of Manuscripts, quoted in Harrison, *Breckinridge*, 27.
[381] Sam Meredith Jr. to John Breckinridge, July 15, November 30, 1790, March 2, 1791, B. MSS, quoted in Harrison, *Breckinridge*, 31. Meredith also described corn that climbed sixteen feet into the sky and rich mineral deposits, waiting to be utilized.
[382] C. L. Rootes to John Breckinridge, February 22, 1791, B. MSS, quoted in Harrison, *Breckinridge*, 31.
[383] Ibid, 28-29.
[384] Ibid, 124-125.

speculation distinct from his own plans to migrate, however, and his 1789 trip allowed him to scout a site he deemed suitable for his purpose.

Early the following year, Breckinridge made his selection and purchased a 600-acre tract of land near the center of the Bluegrass, six miles from the Lexington courthouse and located on the North Elkhorn Creek, a Kentucky River tributary.[385] He also partnered with John Todd to buy an additional 2,000 acres, which they divided in 1792; the resulting 1,600 acres constituted the plantation that Breckinridge christened "Cabell's Dale" in honor of his wife's family.[386] The background knowledge that Breckinridge gathered about Kentucky prior to his move exceeded that available to most would-be migrants due to his extensive resources, but it differed more in quantity than type. Each individual who weighed the decision of whether or not to move west made their choice according to their own personal perceptions of the benefits and drawbacks of residing in each location based on their own lived experiences and the information they gleaned from others about life in Kentucky. Of course, the number of people who actively *decided* to move was much smaller than the number who *actually* made the journey since the choices of white men effectively determined the movement of their dependents. As such, the calculations white men made about the agroecological future of each region carried outsized significance for the future of the landscape in

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[385] Harrison, *Breckinridge*, 30. Family connections influenced his choice of tract, as they did his larger decision to relocate; he purchased the 600 acres from his only sister's father-in-law and it abutted additional acreage to which Betsy and her family moved in 1790. On the North Elkhorn Creek, Kentucky Water Research Institute, "North Elkhorn Creek," *Kentucky River Basin Assessment Report,* (Lexington, 2000) http://www.uky.edu/WaterResources/Watershed/KRB_AR/north_elkhorn_creek.htm

[386] Harrison, *Breckinridge*, 30.

comparison with the priorities of groups like the enslaved and women. The sting of this relative powerlessness was compounded by the fact that these people were simultaneously making their own comparisons between the regions, based on their own experiences and background knowledge, and judged against a different set of priorities in which the agricultural potential of the landscape weighed much less heavily than in those of the white men who stood to gain from it.

Breckinridge's decision to move also meant the forced migration of more than two-dozen enslaved future-Kentuckians.[387] In fact, the antislavery rumblings coming from the region during the lead up to the constitutional convention helped Breckinridge to decide it prudent to send the majority of his human chattel to Kentucky prior to formal separation in case that body outlawed the further importation of slaves.[388] He enlisted the help of friends in his plans to transfer eighteen individuals west and the party experienced a difficult journey in harsh weather across the Wilderness Road in early 1792.[389] Breckinridge then instructed his agent to rent these people's labor to other white settlers for the duration of the year, which netted the slave master

[387] For an overview of how the "serial migrations" to Kentucky of the white Cabell-Breckinridge family group affected the black people they enslaved see Gail S. Terry, "Sustaining the Bonds of Kinship in a Trans-Appalachian Migration, 1790-1811: The Cabell-Breckinridge Slaves Move West," *The Virginia Magazine of History and Biography* Vol. 102, No. 4 (October 1994) 455-476.
[388] Harrison, *Breckinridge*, 31-32.
[389] Terry, 463.

"something over £30" and inserted the recent arrivals directly into an active role in shaping the agroecosystem of Kentucky.[390]

Breckinridge pursued a different course than some branches of his extended family that sent their slaves ahead to in order to prepare the land for the white family's arrival.[391] Instead, John arranged for an associate to lease portions of Cabell's Dale out to white tenants immediately after purchasing the first tract. While his agent on the ground displayed some misgivings about the quality of the renters, he nonetheless had several families settled on the land in 1790. Breckinridge's main goal was not rent from his tenants, but the improvements they would make to the landscape, clearing the forest to create fields, erecting rudimentary buildings, and constructing fences to begin the process of sectioning off portions the landscape in order to assert a greater level of control over them.[392] Removing Cabell's Dale from the "wilderness" state he found it in and creating the rough outlines of the agricultural system Breckinridge aimed to cultivate fell to a group of white tenant families who exchanged their labor for legal access to the land. However, Breckinridge and his tenants viewed the landscape through significantly different lenses, most notably because of the divergent timeframes they applied. Breckinridge viewed Cabell's Dale as his permanent home and a key component to his future success, which led to his emphasis on things like protecting his timber supplies by instructing tenants not to destroy any trees outside their specific leases,

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[390] Harrison, *Breckinridge*, 33. This figure does not include Breckinridge's savings on things like food and clothing for the enslaved individuals, the burden of which fell on the renters, so his overall financial gain likely exceeds this number. Ibid.
[391] Terry, 463.
[392] Harrison, *Breckinridge*, 31.

attending to removing the stumps from their fields, and building sturdy, tall fences that would last for years. These are all priorities of someone who plans a system of long-term utilization, whereas the tenants knew theirs would be a short-term occupation. Their tenure incentivized them to maximize the agricultural output of the fertility available in the initial years of cultivation at a minimum cost of labor invested.[393] These conflicting priorities caused Breckinridge some frustration, particularly when he arrived in the spring of 1793 to find that their leases ran a year longer than he believed and he chose to rent a place closer to Lexington while waiting to move to Cabell's Dale.[394]

When Breckinridge arrived with his immediate family and those slaves who had not made the journey the year before, he came via the Ohio River route, rather than across the treacherous Wilderness Road to which he subjected his chattel.[395] As the group traveled south from the landing at Limestone [modern Maysville] they traversed an "excellent" landscape…"as good as can well be" imagined, "timbered with Walnut, Honey Locust, Buckeye, & cherry," and crossed by "smart" streams and creeks, before arriving at the "delightful situation" of the countryside around Lexington, as described by a contemporary traveller.[396] While the sights likely left Breckinridge anxious to begin directing work on his new agricultural project, he had to satisfy himself with dispatching

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[393] These problems continued to plague Breckinridge's relationship with his tenants for the rest of his life and reflected the high value he placed on the improvements that accrued to him via his tenants' labor in addition to the rents he collected. Harrison, *Breckinridge*, 119.
[394] Ibid, 31-33.
[395] Ibid, 38-39.
[396] Lucy Perry Berry, transcriber, "The Journal of Needham Parry—1794," *Register of the Kentucky State Historical Society* Vol. 34, No. 109 (October, 1936), 381-382.

a few slaves to clear a twenty-five acre tract on Cabell's Dale for the site of his permanent home, setting a few others to work on the leased 18-acre lot near town, and renting the rest out in the white community.[397] His first experience with Kentucky agriculture must have whetted his appetite to begin his operations in earnest as the 1793 season returned a "heavy yield of clover, rye, and wheat…more than he had ever harvested in a single season" in Virginia despite only cultivating eighteen Bluegrass acres.[398]

Breckinridge completed his multi-year, multi-stage relocation to his permanent residence in 1794 and immediately initiated the next stages in his plan to craft his ideal agroecosystem from the Kentucky landscape. But his designs had little time to bear fruit before the agitation for a second constitutional convention to revise the fundamental laws of the commonwealth seemed to threaten some of the central components of the type of agriculture Breckinridge envisioned. When conservative slaveholders failed to block the calls for a convention, Breckinridge emerged to take up the mantle worn by George Nicholas seven years previously and channel the updates to support their agroecological interests.[399]

During the lead-up to the convention familiar agroecological themes again emerged as major points of contention between white men with mutually exclusive views on the structure and purpose of the state's agricultural system. In particular, the

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[397] Ibid, 47.
[398] Ibid, 115.
[399] Breckinridge's assumption of primary leadership became necessary after Nicholas died unexpectedly two days after the convention began in July 1799. Craig Thompson Friend, *Kentucke's Frontiers* (Bloomington: Indiana University Press, 2010), 209.

topics of slavery and private control over one's land became ever more intertwined in the minds of voters and politicians. The pages of local newspapers came alive with impassioned tracts both attacking and defending the institution in terms of the type of agriculture that would emerge from either potential path forward. Some wrote against the current protections offered to slavery, arguing that the requirement that the government only emancipate slaves with the consent and after paying their owners a market price "amounts to a complete & absolute prevention of emancipation" since the state would never possess a surplus of that magnitude and suggested a gradual program by which the enslaved would earn their freedom by laboring for their owners until the age of twenty-eight, a length of time the author considered more sufficient to "discharge the debt" for the owners' loss of property.[400] Even young Henry Clay, recently arrived in Kentucky from Virginia, weighed in on the debate. He argued that "All America acknowledges the existence of slavery to be an evil which, while it deprives the slaves of the best gifts of Heaven, in the end injures the master, too, by laying waste to his lands, enabling him to live indolently, and thus contracting all the vices generated by a state of idleness."[401] Wasted land, linked to sloppy slave labor and the ravages of cash crops associated with slavery, and indolent white men, living in a state of idleness characterized the agroecosystem of the future if Kentuckians failed to see and act on the propriety of gradual emancipation; slavery's detractors framed their most effective arguments (to the white men who actually had a voice in the system) in terms of the

[400] "A Voter in Fayette," "To the Citizens of Fayette County," *Kentucky Gazette*, February 14, 1799.
[401] "To the Electors of Fayette Co." *Kentucky Gazette,* April 25, 1798.

dire agricultural consequences of a continued reliance on slavery for white people and for the land itself.

One of the more extreme defenses of slavery and property rights came from "A Slaveholder" who argued that in addition to electing delegates alert to the "danger from the new-fangled doctrines of our noisy emancipators" it was also vital include a resolution that "no man should have a vote, unless he has either a tract of land or a slave."[402] Historians confronted with this anachronistic suggestion in relatively democratic Kentucky have explained it away as a counterproductive satire on the part of the emancipationists, yet this dismissive reading ignores what is most telling about satire, the window it provides on the truth, with a degree of exaggeration.[403] Whether or not any conservative slaveholders would announce their preference so boldly, many no doubt believed that a person only truly qualified for full citizenship through such an investment in the agroecosystem they led.

The public pronouncements of the opponents of emancipation centered on property rights in a broad sense and became increasingly strident as the election of convention delegates approached.[404] One particularly brash pro-slavery delegate vowed

[402] "A Slave Holder" *Kentucky Gazette*, March 7, 1799.
[403] Friend, *Frontiers*, 209. Since historians typically cast Kentucky as representative of the western embrace of universal white man suffrage, this suggestion doesn't seem to fit the general trajectory of political developments and so has been explained away as unserious, a straw man version of the conservative argument mention to alter poor voters to a supposed threat to their voting rights, so recently enshrined in the state's first constitution.
[404] For example see "Camilus" *Kentucky Gazette*, April 11, 1799 and "A Voter" Ibid., April 25, 1799.

that he "would wade to his knees in blood" before accepting emancipation.[405] Such militant or even apocalyptic declarations had their root in the fear expressed by John Breckinridge to former governor Isaac Shelby that if "they can by one experiment emancipate our slaves; the same principle pursued will enable them at a second experiment to extinguish our land titles."[406] The conservative slaveholders made a concerted effort to magnify the threat posed by emancipation and elect only delegates considered safe on the question through public resolutions of determination "not to give up any part of either our lands or slaves, to these convention folks, let them be ever so poor or covet them ever so much" and shrilly insisted that there was no difference between having a horse stolen by a thief and losing a slave to a covetous legislature.[407] Some opponents attempted to demonstrate that Breckinridge's slippery slope argument exceeded the bounds of credibility claiming it was "the most absurd thing in the world" to think that a majority of Kentucky citizens would ever endorse a plan to strip their neighbors of their title to legally-acquired land and mockingly dared the pro-slavery alarmists to show from "whence are these dangers to be apprehended, and how are the schemes for the destruction of the rights of property to be carried into effect?" While

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[405] Daniel Drake, *Pioneer Life in Kentucky, 1785-1800* (Cincinnati: Robert Clarke & Co., 1870), 208. Quote attributed to Philemon Thomas, county affiliation and status as delegate in *Journal of the Convention* (Frankfort: Hunter & Beaumont, 1799), 4. Filson Historical Society, Louisville, Kentucky.

[406] Breckinridge to Shelby March 11, 1798, B. MSS, quoted in Harrison, "John Breckinridge and the Kentucky Constitution of 1799" *The Register of the Kentucky Historical Society*, Vol. 57, No. 3 (July, 1959), 215.

[407] John Roe, "At a meeting of a large number of the Farmers and Planters of the County of Fayette, at the Big Spring," broadside, April 28, 1798, Printed Ephemera Collection, Library of Congress Online; John Breckinridge, "To the Voter," April 20, 1798, B. MSS. quoted in Harrison, "Breckinridge and the Constitution of 1799," 216.

the author hoped cooler heads would prevail and evaluate the possibility of emancipation in a considered manner, "the spectre of heated imaginations…conjured up" by men like Breckinridge seems to have taken root in the electorate.[408]

When the votes were tallied and the delegates gathered in Frankfort, the fiery rhetoric of the preceding months might have appeared anti-climatic. The approach taken by Breckinridge and his allies persuaded voters to elect delegates who valued slavery. They rhetorically linked the single most basic and widely agreed upon feature of the agroecosystem, a white man's security in his private ownership of legally acquired land, to the fate of what they viewed to be the most vulnerable feature that allowed their factions' dominant position within that system, slavery. Slavery's defenders effectively argued that a defense of one required the defense of the other. Of the fifty-eight men elected as delegates, only one did not own slaves.[409] Given that fact, it is perhaps unsurprising that instead of an epic showdown between the forces of emancipation and slavery protection that a *Kentucky Gazette* reader in the spring of 1799 might have expected, what actually transpired was a measured reinforcement of the constitutional protections provided to the institution. The convention formalized universal white manhood suffrage by explicitly denying the vote to free "negroes, mulattoes and Indians," codifying a race-based exclusion that previously depended upon tradition while also clearly suggesting the role these white men had in mind for

[408] "Spectator" *Kentucky Gazette*, March 21, 1799.
[409] Friend, *Frontiers,* 209.

their black counterparts as laborers in, rather than authors of, the agroecosystem.[410] It also voted down a proposal that would have empowered the state legislature "to prevent the future importation of slaves into this state…whenever they shall think that the policy of this state requires such a regulation" by a margin of thirty-seven to fourteen.[411] Instead, Kentucky's second constitution retained the explicit denial of this power that Nicholas had authored for the first. The legal provisions that white Kentucky men devised to permanently exclude all black residents from full citizenship and bar future legislatures from taking any action against slavery represented innovations in creating a stable political bed in which to plant a perennial slave-based agroecosystem. They proved so effective, in fact, that many future slave states grafted these features onto their own constitutions where they supported the local variant of slave-fueled agriculture.[412]

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[410] Article 2 Section 8, "A Constitution or Form of Government for the State of Kentucky 1799" Kentucky Historical Society Digital Collections, Frankfort KY.

[411] *Journal of the Convention* (Frankfort: Hunter & Beaumont, 1799), 46-47. Filson Historical Society, Louisville, Kentucky; Article 7, Section 1 "A Constitution or Form of Government for the State of Kentucky 1799" Kentucky Historical Society Digital Collections, Frankfort KY. Interestingly, or perhaps ironically given his vociferous opposition to any emancipationist plans, Breckinridge actually voted in favor of this provision. Friend pointed out that the fourteen in favor included the strange bedfellows of "emancipationists and some of the wealthiest and most established Bluegrass planters." *Frontiers*, 210. This suggests that the wealthy planters viewed the possibility as a potential windfall that could drive up the value of their enslaved property and/or men like Breckinridge had knowingly exaggerated the danger posed to slavery, and property rights in general, by granting the legislature any new authority on the topic.

[412] Friend, *Frontiers*, 210. As in 1792, the discerning opponent of the protections provided to slavery and hence the advantages given to the operators of the slave-labor dependent sections of the agroecosystem, a faint silver lining in the near-total defeat in the provisions allowing for the direct election of state senators and governor. Kentucky Constitution 1799 Article II, Section 14 and Article III, Section 2. An optimist might imagine that subsequent governments would be more responsive to the agroecological

Having come through their second constitutional convention in less than a decade and seemingly having settled the most pressing political questions regarding their agroecosystem, Kentuckians looked to the new century with optimism. *Kentucky Gazette* editor John Bradford congratulated his readers on their "entry into the Nineteenth Century" and included accounts of public celebrations around this time that give the impression of an energetic population that anticipated increasing success in the coming years.[413] The toasts at festivities held in honor of patriotic events, such as July 4th or when Thomas Jefferson was elected President, celebrated the burgeoning "agriculture and manufactures of Kentucky" and a hope that their continued growth would soon allow the state to become "truly independent of all foreign nations."[414] Ironically, the very next toast suggested a fundamental way in which the agroecosystem remained dependent upon external powers by wishing "success to those public spirited merchants, who are endeavoring to turn our trade into its proper and natural channel…The Mississippi."[415] This dependence comes through even more clearly a toast at a different event to the "navigation of the Mississippi—May it ever remain free and undisturbed."[416] These toasts read like hopeful prayers precisely because Kentuckians had learned through experience how precarious their access to markets via the Mississippi and New Orleans had been over the previous two decades.

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demands of the non-slaveholding majority of white men should conflicts continue to emerge.

[413] *Kentucky Gazette*, January 5, 1801.

[414] Ibid, July 10, 1800; January 26, 1801.

[415] Ibid, January 26, 1801.

[416] Ibid, July 10, 1800.

The Mississippi Question

Unlike the topic of slavery, the Mississippi question generated almost universal agreement among white Kentucky men, at least in terms of the ultimate goal. While disagreements over tactics existed, virtually all agreed that access to the mighty river was a vital factor in the success of their state's economy. As George Nicholas described it, the "free navigation of the Mississippi will always be the favorite object with the inhabitants of the Western Country."[417] This became clear as early as 1784 when Spanish officials closed the river to American traffic, which touched off a firestorm of protest in Kentucky and acted as an early catalyst in the movement for statehood. Kentuckians felt particularly incensed by the national government's apparent willingness to exchange their rights to the Mississippi for favorable trade terms for eastern states with European powers.[418] Considerations of how developments might influence their access to the river figured prominently in residents' political calculations regarding national and international events from that point forward, as when "A Farmer" considered the benefits and drawbacks of separation from Virginia in 1787 largely in the context of how each option would affect downriver trade prospects. He asked his neighbors "What probable prospects can a new State have of obtaining a trade down the Mississippi; and what prfits [sic] can we derive from such a trade?" or whether they would be able to "take any steps toward promoting and regulating a profitable trade down and up the rivers?" if they remained in Virginia, and if so would such an

[417] Harry Innes and George Nicholas to Thomas Power, *Harry Innes Papers*, Library of Congress, Copy at KHS, Frankfort, Kentucky, quoted in Dupre, "Political Ideas" 212.
[418] Harrison, *Road to Statehood,* 18, 46.

arrangement "regulate such trade to our advantage?"[419] This writer suggested that only statehood could give Kentucky the standing within the nation and world to have their rights to the Mississippi taken seriously, but some considered the intersection of geography, shifting imperial boundaries and their own vision for the future of the agroecosystem and floated even more dramatic options.

Famous political intriguer and "scoundrel," James Wilkinson saw opportunity amongst the uncertainty.[420] The so-called "Spanish Conspiracy" that Wilkinson organized with an eye to separating Kentucky from the United States and allying with the Spanish crown during the 1780s drew the attention of both contemporaries (once sketchy details began to emerge) and historians consumed with determining the veracity of the charges against Wilkinson and others, yet little attention has been paid to the environmental context that made the scheme appear to be viable in the first place.[421] Wilkinson, like those white men he hoped to convince, viewed a market for their expected agricultural surplus as an absolutely essential feature of the entire

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[419] "A Farmer," *Kentucky Gazette*, August 17, 1787.

[420] Royal Ornan Shreve, *The Finished Scoundrel: General James Wilkinson* (Indianapolis: Bobbs-Merrill Co., 1933).

[421] See for example, Daniel Clark, *Proofs of the Corruption of Gen. James Wilkinson and of his Connection with Aaron Burr* (Philadelphia: William Hall & George Pierie, 1809); James Wilkinson, *A Brief Examination of Testimony to Vindicate the character of General James Wilkinson against the imputation of a sinister connexion with the Spanish government, for purposes hostile to his own country* (Washington City: W. Cooper, 1811); James Ripley Jacobs, *Tarnished Warrior: Major-General James Wilkinson* (New York: The Macmillian Co, 1938); Thomas Robson Hay and M. R. Werner, *The Admirable Trumpeter: A Biography of General James Wilkinson* (Garden City, N.Y.: Doubleday, Doran & Co., 1941). Despite the wealth of research on the topic, Wilkinson's "true intent may never be known" since he always "displayed a genius for avoiding any absolute commitment that would condemn him if the schemes failed." Harrison, *Road to Statehood*, 51.

system. He was an early example of a settler who immediately set about establishing the connections he perceived to be necessary, in part because his personal finances dictated that he act quickly. Wilkinson's debts followed him across the mountains and the claims of creditors lent urgency to his search for a profitable market.[422]

As early as 1787, Wilkinson led an expedition down the river system of the western country to test the Spanish ban on selling American goods at New Orleans. His efforts met with success and he procured a permit to ship more items in the future, essentially securing a monopoly on downriver trade since the Spanish governor did not issue any other permits.[423] Wilkinson aimed to use an agroecological weakness arising from a combination of the geography of North America and the demands of the agriculturalists, which seemed to dictate the Mississippi as the only acceptable avenue to market, as the lever to control Kentucky's political future. Control access to the sole acceptable port in order to control the region. His early efforts back in the Bluegrass seemed to match those he achieved with the Spanish governor in New Orleans.[424] By 1789, he and his partner Peyton Short gave notice "To the Planters of the District of Kentucky" of their plan to "receive Tobacco on consignment for the City of New-Orleans…to be shipped under the sanction of J. Wilkinson's privileges and engagements" and sold "to the best possible advantage either in" the city, "or by shipped it to

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[422] Michael Lacassagne to James Wilkinson, February 2, 1791, *The First American West* Collection, Library of Congress Online, original in Reuben T. Durrett Collection, Special Collections Research Center, University of Chicago Library.
[423] Harrison, *Road to Statehood*, 48-53.
[424] As late as 1803, Wilkinson was still the subject of toasts at public celebrations; for example, to "General Wilkinson—Let us not forget the man who first adventured as an exporter of produce to New Orleans," *Kentucky Gazette*, August 16, 1803.

Europe."[425] In an explanatory letter they enclosed with the copy of the announcement they sent to Isaac Shelby, the partners explained that they viewed the project as a way to "support the price & encourage the culture of the article," which would in turn support the maturation of the entire agricultural system.[426] Prices for agricultural products rose across Kentucky in response to Wilkinson's opening a new market and his influence waxed within the district, but the appearance of progress on the question of statehood within the union and the Spanish relaxation of trading restrictions, stifled any plans Wilkinson had to use his monopoly control over Kentuckians' access to regional and international markets as a way to steer the district in the direction that would most benefit him.[427] Whatever his ultimate intentions, his plans hinged on utilizing his political connections to exploit the settlers' culturally-defined perception that they *needed* a market for their goods by controlling the geographically- and technologically-defined route to that market. Imagine instead that the settlers in the region truly found their new home an "eden" that completely met all of their needs and desires, thus removing the cultural impulses to trade; in that case, no market access would have been necessary and Wilkinson's plans devolve into incoherence. Or, suppose that the market new Kentuckians were most infatuated with lay in a native settlement at the headwaters of the Missouri, in which case geography would have encouraged Wilkinson

[425] James Wilkinson and Peyton Short, "To the Planters of the District of Kentucky," December 19, 1789, *The First American West Collection*, Library of Congress Online, original at The Filson Historical Society, Louisville, Kentucky.
[426] James Wilkinson and Peyton Short to Isaac Shelby, December 19, 1789, *The First American West Collection*, Library of Congress Online, original at The Filson Historical Society, Louisville, Kentucky.
[427] Harrison, *Road to Statehood*, 53.

to seek out very different political alliances than the Spanish in Louisiana. Imagine, finally, that Wilkinson's plans unfolded after the railroad became the dominant technology transporting produce to market, as opposed to flatboats and wagons, in which case his plotting would involved far more corporate executives and fewer imperial officials. As these counterfactuals suggest, the specifics of Central Kentucky's agroecological context fueled the political controversy that intrigued the state for decades.

Even after Wilkinson's schemes collapsed and statehood within the union achieved, any disruption of the downriver trade saw Kentuckians quickly begin to weigh their options, often publically and with a hint of threat should the situation not be speedily resolved in their favor. In the midst of one impasse between the national government and the Spanish empire, John Breckinridge darkly warned that "'As distant…as our thoughts may be from a connexion with the British or the Spaniards, at this present time, let Government take care they do not drive us to it. The Miss. we *will* have. If Government will not procure it for us, we must procure it for ourselves. Whether…by the sword or by negotiation.'"[428] Kentuckians viewed access to the Mississippi as a "natural" right, inextricably written into the landscape; John Rhea, for instance, described the river as "'the great Road of Nations—its Waters run free, so ought its use to be.'"[429] Regional promoters glossed over the issue, focusing on the

[428] Breckinridge to Samuel Hopkins, September 15, 1794, *B. MSS.*, quoted in Harrison, *Breckinridge*, 58.
[429] John Rhea to John Breckinridge, September 19, 1794, *B. MSS*., quoted in Bernard Mayo, *Henry Clay: Spokesman of the New West* (Washington D.C.: Archon Books, 1966), 133.

ready market in New Orleans for agricultural surplus, while briefly acknowledging that it was "true we only enjoy this privilege from the court of Spain," and asserting, "whenever that is withheld, we most likely shall seize upon all Louisiana."[430] To those men and women already living in Kentucky, however, the blithe assumption that access would be secured at some future date provided little consolation.

Throughout the 1790s, any indication that trade on the Mississippi might be limited or disrupted brought howls of protest. In central Kentucky, men created Democratic Societies to air their grievances. Fayette County residents, led by men such as *Gazette* editor John Bradford and planter politician John Breckinridge, formed the first Society in the state and published their interpretation of the situation in 1793. In an address "To the Inhabitants of the United States West of the Allegany and Apalachian Mountains" the Society laid out what it believed to be "the measures necessary to obtain…the free navigation of the Mississippi," which they deemed an "unavoidable necessity."[431] They declared it a natural right and argued that "the beneficent God of Nature" had "blessed this Country with unparalleled fertility" and "a number of navigable streams" to "convey its superabundance to other climes."[432]They went on to complain of the apparent lack of effort by the national government to secure these

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[430] Gilbert Imlay to Harry Toulmin, February 2, 1793, quoted in Harry Toulmin and Thomas D. Clark, ed. *A Description of Kentucky in North America: To which are Prefixed Miscellaneous Observations Respecting the United States* (Lexington: University Press of Kentucky, 1945) originally published 1792, 118.
[431] John Breckinridge, chairman, "To the Inhabitants of the United States West of the Allegany and Apalachian Mountains," December 13, 1793, reproduced in ""The Democratic Societies of 1793 and 1794 in Kentucky, Pennsylvania and Virginia," *The William and Mary Quarterly* Vol. 2, No. 4 (Oct. 1922), 240.
[432] Ibid.

rights for more than a decade, which they attributed to anti-western bias, and called on all westerners to "unite our endeavors in the common cause" of demanding their natural right to the river from any who sought to oppose them.[433] The agroecological imperatives behind their demands come into focus with their reminder "that considerable quantities of Beef, Pork, flour, Hemp, Tobacco &c…remain on hand for want of purchasers" and even "greater quantities might be raised if the Inhabitants were encouraged by the certain sale, which the free navigation of the Mississippi would afford," and this, in turn, would stimulate Kentucky's industry and commerce.[434] If the stakes still did not seem high enough to motivate westerners to action, the Society's call to remember that the success of their descendants' agroecosystem also depended on access to suitable markets, might have prodded some long-sighted farmers to join the cause. The Kentuckians' address quickly travelled back east across the mountains.[435]

In a "Remonstrance of the Citizens West of the Allegany Mountains" addressed "To the President and Congress of the United States" the Lexington Democratic Society struck an irritated and impatient tone in asserting their natural right to free access to the river. They recalled years in which that had "without ceasing" appealed to the general government to alleviate their "degraded situation," none of which ever "produced one single real effort to procure this right."[436] While the "remonstrance"

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[433] Ibid., 242.
[434] Ibid., 242-243. The Society also deemed the current "crisis" of the European wars in which the Spanish were engaged might prove "favourable" to an American seizure of Louisiana.
[435] Harry Innes to Thomas Jefferson, December 28, 1793, Library of Congress online.
[436] John Breckinridge, "To the President and Congress of the United States of America: The Remonstrance of the Citizens West of the Allegany Mountains" reproduced in "To

maintained the Kentuckians' loyalty to the union, the author warned that "patriotism, like every other thing, has its bounds" and that "attachment to governments cease to be natural, when they cease to be mutual."[437] In the end, the address declared free navigation of the Mississippi "to be a right which must be obtained; and…if the General Government will not procure it for us, we shall hold ourselves not answerable for any consequences that may result from our procurement of it."[438] In addition to these two widely distributed statements, the Kentucky Democratic Society also resolved to make a test case to demonstrate their point. They proposed "'to make an attempt in a peaceful manner, to go with an American'" boat "'into the sea through the channel of the Mississippi'" in order to "'either procure an immediate acknowledgement of our right from the Spaniards; or if they obstruct us'" to "'be able to lay before the Federal Government…unequivocal proofs of their having done so'" and thereby force their hand.[439] Other Democratic Societies sprang up amongst like-minded men around central Kentucky adding to the cacophony of western voices demanding secure access to the only viable route to market for their agroecological surplus.[440]

The fuss Kentuckians raised over access to the Mississippi and the threats, both veiled and direct, drew national attention. Kentucky Senator John Brown wrote back

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the President and Congress of the United States of America," *The William and Mary Quarterly*, Vol. 2, No. 4 (Oct. 1922), 244-245.

[437] Ibid., 245.

[438] Ibid., 246.

[439] "The Democratic Societies of 1793 and 1794 in Kentucky, Pennsylvania and Virginia," *The William and Mary Quarterly* Vol. 2, No. 4 (Oct. 1922), 239-240.

[440] E. Merton Coulter, "The Efforts of the Democratic Societies of the West to Open the Navigation of the Mississippi," *The Mississippi Valley Historical Review*, Vol. 11, No. 3 (Dec., 1924), 376-389.

from Philadelphia that the Kentucky Democratic Society had "excited some attention & perhaps, some apprehension lest the impatience of the Western Brethren may precipitate them into some measure which may involve the U. States in an unequal contest."[441] Even when writing to denounce charges of disunionism and distance themselves from radical proposals, Kentucky politicians could not resist the urge to press their claim to have their right to navigate the river and deposit cargo in New Orleans taken more seriously by the national government. In an open letter to "his Friend in Virginia," George Nicholas denied ever having "heard even one man express an opinion that [disunion] ought, or a wish that it should take place," but immediately went on to complain of the difficulty of meeting the state's federal tax burden without adequate security of their trade routes and muse about the possible benefits of a war with Spain, a "rich and weak country."[442]

The agitation by the Democratic Societies, and Kentuckians generally, persuaded the Washington administration to keep the public more fully apprised of the progress in negotiations with the Spanish and the revelation that the federal government *was* actively pursuing their rights cooled tempers considerably. Ultimately, these negotiations resulted in the "Treaty of Friendship, Limits, and Navigation Between Spain and the United States" which was signed in 1795 and ratified by both countries the

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[441] John Brown to Harry Innes, December 31, 1793, quoted in Coulter, "Efforts of the Democratic Societies," 386.

[442] George Nicholas, *A Letter from George Nicholas of Kentucky to his Friend in Virginia Justifying the conduct of the Citizens of Kentucky, as to some of the late Measures of the General Government; and correcting Certain False Statements, which have been made in the different states, of the Views and Actions of the People of Kentucky* (Philadelphia: James Carey, 1799), 24-25.

following year. The treaty defined the boundaries between the two powers and guaranteed the Kentuckians navigation rights on the Mississippi.[443] It also received a joyous reception in the Bluegrass.[444] By the end of the decade, Kentuckians carried out a significant and growing downriver trade that one observer deemed "'almost incalculable'" and destined in a few years to "'administer to the wants of North and South America and their dependencies.'"[445] In a similar vein, Governor James Garrard praised the "Vessels built on our waters, calculated for transporting our commodities to the most distant quarters of the globe [that] afford us a flattering view of the resources and future greatness" of the state.[446] Yet, Kentuckians seldom forgot the fact that this trade relied on the continued cooperation of a foreign power.

A military conflict suddenly seemed much more likely in November 1802, mere weeks after Governor Garrard's optimistic forecast, when word arrived that Spanish Intendant in New Orleans had rescinded "the privilege which the Americans had of bringing and depositing their goods in this capitol."[447] A broadside printed in Natchez to alert the Americans that the "Port of New-Orleans [was] SHUT" included the commentary that the order "must produce infinite embarrassment as well as much loss

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[443] The treaty is also variously known as "Pickney's Treaty" and the "San Lorenzo Treaty," for a full treatment see Samuel Flagg Bemis, *Pickney's Treaty: America's Advantage from European Distress, 1783-1800* (New Haven: Yale University Press, 1960).
[444] Coulter, "Efforts of the Democratic Societies," 388.
[445] Samuel Hopkins to John Breckinridge, May 3, 1799, *B. MSS.,* quoted in May, *Henry Clay*, 133.
[446] *Kentucky Gazette*, November 9, 1802.
[447] Ibid., November 30, 1802.

to many of the citizens of the United States."[448] The "astonishing and truly lamentable" reversal saw Kentuckians quickly revert to the arguments of the previous decade.[449] The General Assembly unanimously resolved that such a closure of the port violated the Treaty of Friendship, Limits and Navigation and sent a memorial to the President and national Congress requesting their assistance and pledging "to support, at the expense of our lives and fortunes, such measures as the honor, and interest of the United States may require."[450] While some hoped to avoid "unnecessary bloodshed," this sentiment seemed weak compared to the widely held belief that the government should "take such immediate and proper steps to secure us our natural rights…as will effectually prevent in the future, any obstruction by a foreign people."[451] This problem would continue to emerge "unless prompt movements are made…to embrace that country in the arms of, and if necessary *by the armies of the union*."[452] Henry Clay later recalled of this crisis period "The whole [western] country was in commotion; and, at the nod of Government, would have fallen on Baton Rouge and New Orleans" to punish "the

[448] Gontar, Cybele. ""Port of New-Orleans SHUT.": A Natchez Broadside at Archivo General de Indias" *Common-Place* vol. 16.2 http://common-place.org/book/port-of-new-orleans-shut-a-natchez-broadside-at-archivo-general-de-indias/
[449] *Kentucky Gazette*, November 30, 1802.
[450] "The Memorial," *Kentucky Gazette*, December 7, 1803.
[451] Ibid., December 7, 1803.
[452] Ibid., February 14, 1803. Others were somewhat more critical of the military option, pointing out that is was uncertain whether they would actually be fighting the Spanish, or the French, then rumored (correctly) to have been in negotiations to secure Louisiana from the Spanish, for example see "The Honb. John Fowler to his Constituents" *The Guardian of Freedom* (Frankfort), April 6, 1803.

treachery of a perfidious" Spanish empire and seized the Louisiana territory for the United States.[453]

Even after the right to deposit was restored in May, Kentuckians maintained the pressure to guarantee permanent access. As John Breckinridge noted, such international agreements were "of very little importance" compared to the fact of continued foreign control over the mouth of the Mississippi, which left his state in "the perpetual fear of similar & more violent outrages on our commerce."[454] The agroecological demand for a market was perpetual and Kentuckians demanded that their access to it be as well. Only the formal ratification of the Louisiana Purchase in December 1803 fully secured their undisputed right to free navigation of the Mississippi and seemed to provide a stable outlet for the surplus produced by the agroecosystem. Celebrations in the Bluegrass toasted Jefferson's acquisition of "The Mississippi; the great emporium of Western commerce," which would allow trade "with all nations" and gave thanks on behalf of "unborn millions" who would benefit from the expansion of "the empire of liberty."[455] They called attention to the "ship-builders on the Mississippi and its tributary streams" who would facilitate the "farmers, mechanics and merchants of the Western country: May their labours…be reciprocally beneficial to each other."[456] The number of vessels on the western waters multiplied as would-be traders sought advantage in the newly

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[453] Henry Clay, "Naval Establishment" *Annals of Congress* House of Representatives, 12th Congress, 1st Session, January 1812, 916.
[454] John Breckinridge to James Monroe, July 9, 1803, *B. MSS.*, quoted in Mayo, *Henry Clay*, 140.
[455] *Kentucky Gazette*, May 15, 1804. From the celebration in Lexington.
[456] Ibid., May 15, 1804. From the celebration in Paris, Kentucky.

secured market; for example William Calk journeyed south in 1804, "bound to the port of knew orleans…on a speculation with a Boat loaded with corn, tobacco, bacon & laird."[457] Central Kentuckians viewed the Louisiana Purchase as the key to unlock the potential of their entire agroecosystem from small plots of corn tended by squatters to the large-scale manufactories transforming raw hemp into finished rope.

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[457] William Calk's 1804 Journal of Trip to 'Knew Orleans,' Calk Family Papers, Kentucky Historical Society Special Collections, Frankfort, Kentucky.

Chapter Six: Agricultural Elaboration

Throughout this period of political stabilization and the struggle for access to external national and international markets, central Kentucky agriculture acted as the engine powering the machinery of political and economic development. Indeed, it was the success of agriculture that spurred the architects of the agroecosystem to demand that the other components they deemed necessary for the entire system to flourish be brought up to speed. John Breckinridge's lament that "Of little ultimate avail, are all our improvements, the fertility of our soil," the cribs overflowing with corn and the smokehouses bursting with meat because their lack of market access meant that Kentuckians would be forced "to parch & eat the one, & grease their Bodies with the other; & become as uncivilized as savages," reveals the extent to which the region's agriculture matured faster than the ligaments connecting that system to the broader world.[458] Immigration to central Kentucky continued during the final years of the eighteenth century and every new arrival took up some role in the expanding agroecosystem.[459]

Most migrants were drawn to Bluegrass by a combination of factors that included some mix of the desire to "live a full life on an independent farm, to cultivate the land and harvest the product, to bequeath property to his children," and ultimately, "to pursue profit," as one scholar noted in his study of Kentucky's economy in the early

[458] John Breckinridge to James Monroe, January 15, 1796, *Monroe Papers*, Library of Congress, quoted in Harrison, *Breckinridge*, 117.
[459] The 1800 Census enumerated Kentucky's population at 220,959. *Return of the Whole Number of Persons within the Several Districts of the United States* (1800), 2.

republic.[460] While some members of the propertied elite from the eastern states made the journey, those of more modest means comprised the numerical majority. The poor white migrants who arrived in continuing waves acted on a belief that their fortunes would improve in the agriculturally rich Bluegrass state; those who arrived in the spring of 1797 and happened upon a copy of the *Kentucky Gazette* would have found reason for optimism in the poetry of the back page, which extolled:

> "Our soil so rich, our clime so pure,
> Sweet asylum for rich and poor—
> Poor did I say!—recall the word,
> Here plenty spreads her gen'rous board;
> Base poverty must stay behind,
> No asylum with us she'll find—
> Avaunt, fell fiend! we'll know thee not,
> Thy memory must forever rot;
> Dame Nature, by a kind behest,
> Forbade you ever here to rest."[461]

Here the natural attributes of the landscape took center stage. The land of Kentucky was so rich it rendered poverty impossible. Yet the poet remained silent on the relationships among people. One's material success should flow from their relationship with the landscape, not from the beneficence of their fellow Kentuckians. At the same time that poor white migrants saw Kentucky as an avenue to a more secure future within an agricultural system in which they had some level of personal and family control over their own small slice, others viewed the landscape as a chance to enact their vision for an improved agroecosystem over large swaths of the countryside utilizing the labor of

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[460] Craig Thompson Friend, "'Work & Be Rich': Economy and Culture on the Bluegrass Farm" in Friend ed., *The Buzzel About Kentuck: Settling the Promised Land* (Lexington: University Press of Kentucky, 1999), 125-126.
[461] *Kentucky Gazette*, April 1, 1797.

an array of dependents, from family to slaves and from wage laborers to tenants. The ultimate failure of the land to fulfill the promises made on its behalf to shield all comers from poverty and exploitation stemmed from the conflicting visions different settlers had for the land and the divergent resources the individuals could mobilize in pursuit of their vision, rather than any inherent environmental shortcoming. The agroecosystem of the Bluegrass during the early years of statehood emerged out of these conflicting visions, arduous physical labor and the evolving ecological context.

Economic Diversity and the Agroecosystem

Those with the most power to impose their will on the recalcitrant landscape included men like John Breckinridge whose reach extended far beyond the acres they actively modified. Their resources allowed them to take up roles in multiple parts of the system from growing crops and raising stock to collecting rents and investing in industry. Those with fewer economic and cultural resources also interacted with the agroecosystem in a variety of ways, as we shall see, but their relative position within the system meant their influence on the landscape typically operated on a micro level and they possessed less freedom to implement their own vision. Agriculture represented a cultural ideal among the early Kentuckians and its success underlay the development of every other component of the agroecosystem, as a poet rhapsodized:

> "Regale yourselves a moment while I sing
> The pleasures that from Agriculture spring.
> Look round your farms—how rich the prospect seems!
> The orchard bends, the field luxurious teems!
> Here Agriculture opens to our view,
> A land of milk and honey, rich and new.
> Here she unbosoms all her golden store,
> And wealth and plenty in your coffers pour…

Here she delights your industry to bless,
And crown your toil and labors with success.
Thrice happy swains! go on and till your fields,
Enjoy the fruit your own hand's labor yields."[462]

Residents confidently pinned their hopes for the future on the success of the agroecosystem emerging around them, but the specific configuration of that system meant that the majority of the benefits of its success flowed to a minority of the regional population. While some Kentuckians insisted there where no beggars in the "finest Country in the World" because it contained the "best Land & cheapest," more realistic commentators cautioned immigrants to either "bring a fortune" or an appetite to "at first live low and work hard."[463]

Instead of securing their own slice of the land of milk and honey, many migrants found themselves shut out of landownership and relegated to laboring for others. This group included virtually all black Kentuckians, whether they numbered among the free or the enslaved, but also a large percentage of white Kentuckians as well. Well over half the white men of Kentucky owned no land by 1800.[464] Whether laboring as a tenant farmer cultivating fields of corn or as a slave in a hemp manufactory, these men and women worked within the parameters set by those above them in the agroecological

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[462] "Ode to the Farmers," *Kentucky Gazette*, October 3, 1798.
[463] Isla Earle Fowler, ed., "Kentucky 150 Years Ago: As Seen Through the Eyes of an English Emigrant Told in Two Letters Written by Henry Alderson, Dated September 10, 1801" *The Register of the Kentucky Historical Society* Vol. 49 No. 166 (January 1951) 55-59; Schwaab, *Travels in the Old South, Selected from Periodicals of the Times* Vol. 1 (Lexington: University Press of Kentucky, 1973), 59.
[464] Lee Soltow, "Kentucky Wealth at the End of the Eighteenth Century" *The Journal of Economic History* Vol. 43, No. 3 (Sep. 1983), 620. Soltow's analysis of state tax records indicate that between 43 and 46 percent of white men over the age of 20 owned land in 1800.

hierarchy. The degree of influence over the system one enjoyed typically reflected the degree to which one benefitted from the fruits of the region's agroecosystem. Yet despite the fact that the majority of men and women did not meet the cultural ideal of landowning independent agriculturalists, they nonetheless played key roles in shaping agricultural landscape of the Bluegrass.

Tenancy emerged as a component of the labor system soon after the initial American settlement of the region. Some landowners used the labor of tenants to prepare their tracts for agriculture, as we saw with John Breckinridge who leased his presumptive home farm to several white families so that they might perform much of the preliminary work to wrest fields from the forests and smooth the Breckinridge family's transition to the central Kentucky landscape. Many also utilized tenancy as a way to realize a return on their landholdings while avoiding the difficulties of cultivation. The yearly tax bill assessed of each property owner incentivized tenancy by encouraging them to find ways to make the land pay its own way; unsettled tracts might become a drain on an owner's finances and could be sold to redeem back taxes. This incentive structure, itself a transplanted feature carried across the mountains by the American settlers as part of the political and economic underpinnings of the agroecosystem, served to accelerate the transformation of the landscape by creating a carrot to reward utilizing the land in the form of rents and a stick to punish those who left their land idle in the form of taxes.

For those who could afford the initial investment to secure a relatively large section of the Bluegrass landscape, tenants could provide a lucrative income. Henry

Alderson, for example, described his successful agricultural enterprise located five miles from Lexington around the turn of the century as dependent on the labor of his tenant. In a letter back to family in England, Alderson boasted of his newfound wealth, best measured "not in gold or silver but in such Articles as are more valuable, that is, in Horses, cattle, corn, grain & land," which he gained from "a plantation of 160 acres of the best land," most of which he "let to a Tenant" who paid "every 3rd shock of Wheat, rye, etc. for rent." In addition, his tenants "reaped above 100 Bushels of rye…of a field that [Alderson] sowed [himself] & neither plowed it nor harrowed it." What Alderson collected in rent from his tenant, combined with the three fields that he cultivated himself, enabled him to "keep 7 or 8 Horses, mares & fillies, ten cows or young cattle, 20 sheep & hogs, etc."[465] Thus the labor of tenants supported Alderson's successful agricultural project on his home farm, allowing him to benefit from the local landscape's production without the responsibility of directing the work himself.

In other instances, large landowners leased out some of their multiple holdings, whether they were located across the county or across the region. Throughout the final decades of the eighteenth century and into the nineteenth, advertisements for tracts available for lease peppered regional periodicals such as the *Kentucky Gazette*. These notices aimed to attract tenants by boasting of the plots' fertility and offering attractive terms that promised the potential leasers a fair return on their labor. For example, the

[465] Isla Earle Fowler, ed., "Kentucky 150 Years Ago: As Seen Through the Eyes of an English Emigrant Told in Two Letters Written by Henry Alderson, Dated September 10, 1801" *The Register of the Kentucky Historical Society* Vol. 49 No. 166 (January 1951) 55-59.

trustees of the Transylvania Seminary of Lexington leased some of the institutions' holdings to a private partnership, which in turn advertised for "Fifty Tenants Wanted" to settle on land "most eligibly situated on the Ohio and Harrod's creek…of the first quality, well watered and covered with the most luxuriant cane" with "good mills in the neighborhood." The tracts were to be "divided…suiting the convenience of the Tenants" and leased for seven years; the tenants had two options of terms, they could either "have the land they clear, rent free for five years, and pay two dollars or four bushels of wheat per acre, for each of the two remaining years" or have the land "Rent free three years, and half a dollar per acre for the fourth year—three quarters for the fifth,--one dollar for the sixth, and one dollar and a quarter for the seventh."[466] On a more local scale, Fayette County resident John Breckinridge advertised several tracts within six miles of Lexington for lease for a term of seven in 1795 and sought "twenty tenants" to settle the land.[467] He also rented out land adjoining his home acres on Cabell's Dale according to terms like those he established with Abraham Jones in 1795; Jones leased a modest home and twelve acres for two barrels of corn per acre, twenty acres of meadow in exchange for one-third of the hay harvest after the first year, and thirty acres of uncleared land rent free for four years, provided he cleared it first. The lease further stipulated specific requirements for the fencing improvements that were part of the bargain.[468] Within the framework of this agreement, Jones could pursue a variety of agricultural strategies to both meet his obligations and advance his own interests.

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[466] *Kentucky Gazette*, November 21, 1795.
[467] Ibid., December 19, 1795.
[468] Harrison, *Breckinridge*, 119.

Tenancy allowed white men without the financial resources to purchase their own land a way to nonetheless participate in the agricultural project, albeit with less freedom of operation than their landowning counterparts. Estimates suggest that tenants made up as many as a quarter of Kentucky households around the turn of the nineteenth century.[469] These folks occupied a middle station in the agroecological hierarchy and they could direct their own agricultural operations within the broad framework negotiated between themselves and the owner, but the terms of their leases necessitated nudged tenants in the direction of market production. Rent bills, whether assessed in crops or cash, meant tenants could not simply focus on family subsistence and had to find a way to make the land pay within a few years. This feature of the system of tenancy in central Kentucky encouraged the spread of market crops across the landscape, while allowing the farmer a degree of choice about how best to enter the market.

Many tenant farmers aspired to landownership and full participation in the cultural ideal of independent agrarian citizenship. Ironically, this ambition could place the renters at odds with their landlords. Not only did the different timeframes the two parties projected on the landscape cause tension, as we saw in John Breckinridge's agreement with his tenants in 1790, but the lure of landownership could also seduce away the most valuable tenants, from the landlords' perspective. One landholder complained that the landless would "not remain tenants longer than they can procure

[469] Fredrika Johanna Teute, "Land, Liberty, and Labor in the Post-Revolutionary Era: Kentucky as the Promised Land" (Ph. D. dissertation, Johns Hopkins University, 1988), 294.

100 acres of tolerable farming land" even if those acres were further west on the frontier, which necessitated his continual search for new tenants.[470] A seemingly more neutral observer noted that "Many people come from Virginia & other States very poor & are strangers" but after a few years of tenancy "ordinarily if prudent they go off on land of their own and full of stock & provisions."[471] As these examples suggest, some tenant farmers were able to acquire their own land and in many cases they eventually purchased the very tracts that they had initially cleared and farmed as renters. This type of individual success for the tenant also benefitted the original landowners who often collected rents for years before selling the now-improved tracts for a higher price than they would have initially warranted.

Yet this hard-won advance from tenant to proprietor that some achieved was not the normative experience, as the statistics on landownership indicate. Many, like John Wallace who moved to Bourbon County in 1792, hoped their time as a tenant would be brief, but instead found themselves struggling to get by. Wallace quickly became dependent on his merchant brother and worked for years to scrape together enough capital to purchase cheaper lands across the Ohio River.[472] In fact, some people slid the opposite direction, down from owner to tenant. Samuel Carr, for example, sold the "lands, tenements and improvements whereupon [he] now live[d] as well as the

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[470] Robert Breckinridge to Samuel Beall, April 18, 1792, Beall-Booth Papers, Manuscripts Collection, Filson Historical Society, Louisville, Kentucky.
[471] R. C. Ballard Thruston ed., "Letter by Edward Harris, 1797" *The Filson Club History Quarterly* 1928, 167.
[472] John C. Wallace Journal, 1786-1802, Manuscripts Collection, Filson Historical Society, Louisville, Kentucky.

woodlands & timbering adjoining thereto" for two hundred dollars and at a stroke became a "tenant of the said Waring" who purchased the land.[473] The agreement also stipulated that Carr vacate such of the buildings on the property as Waring saw fit to lease out to other tenants in his effort to hasten the spread of the agroecosystem across his new section of the landscape. Whether tenancy represented a temporary stop on an upward or downward trajectory or a permanent strategy adopted by choice or necessity, it nonetheless served a vital function by facilitating a relationship between those white men without the resources to purchase their own land and the agricultural environment. Tenancy allowed a quicker and more thorough spread of the cultivated landscape than would have otherwise been possible.

Continuing our rough calculations of the status of white male heads of households around the turn of the century, the approximately fifty percent that owned land and the twenty-five percent who rented, means that a quarter of white men fell into neither category. Yet, virtually all interacted with components of the agricultural system throughout their day-to-day lives. Some lived as squatters, farming lands without legal title or rental agreement. Others labored for wages, whether in local urban centers such as Lexington or in the fields of the countryside. In some cases, landless migrants appeared to observers as aimlessly wandering the landscape without a plan or hope for the future. Visitor Moses Austin described this type of Kentuckian and predicted many would end in poverty. According to Austin, they had moved west on the

[473] Samuel W. Carr and John U. Waring land agreement, August 20, 1823, Greathouse & Waring Family Papers, Kentucky Historical Society, Special Collections, Frankfort, Kentucky.

expectation of procuring land without any concrete plan to do so and found "the Land of Milk and Honey…to them forbiden Land." In the end, "exhausted and worn down with distress and disappointment they are…Oblid.d to become hewers of wood and Drawers of water."[474]

The practical tasks Austin references as examples of the type of degraded station to which these wandering families would sink suggests that poor whites nonetheless labored in and influenced the agricultural landscape. That the menial labor of chopping wood and moving water drew the scorn of elite observers should not obscure the necessity of such tasks. The presence of a large population of landless, propertyless, but free men created a pool of labor that could be tapped by the landowners when their need temporarily exceeded their supply. However, Austin's tone also reveals the extent to which many of the propertied Kentuckians viewed the poor among them as problematic for the entire system. Not only did these rootless families seem to undermine the stability of the fledgling society, some shrilly warned that poverty also posed a threat to the land itself. Elite observers placed the blame on their poor neighbors, attributing their circumstances to personal failings. In their view, the idleness of the impoverished seemed poised to wipe away the advances of the agroecosystem in some corners of the landscape and decrease its overall effectiveness. "An Ode to Poverty" printed in the *Kentucky Gazette* in 1803 suggested that its influence was so powerful that

Nature herself's so alter'd by thy power,

[474] Moses Austin, 1796, quoted in Ellen Eslinger, ed. *Running Mad for Kentucky: Frontier Travel Accounts* (Lexington: University Press of Kentucky, 2004), 179.

That fields and meadows, each gay tint disdaining,
No more to me display the gaudy flower.
Tho' late with rural charms each thought delighting,
The maids and milk-pails, now no more can please;
The billing turtle-doves to me seem fighting,
And gentle zephyr turn'd to boreal breeze.[475]

To many poverty seemed like a bug in the agricultural system that might spread and result in fields laying fallow and the possible encroachment of wilderness back in from the edges of cultivation. Few, however, examined the ways in which foundational features of the agroecosystem, such as the sanctity of private property, the cultural value placed on large landholdings, and slavery, virtually assured that many Kentuckians would be blocked from direct investment in the agricultural project as the nineteenth century unfolded. Despite the obstacles to entering the ranks of the landholders, those labeled "dependents" contributed to virtually every aspect of the agricultural economy, as we shall see.

For those who did possess the resources to make landownership feasible, a number of sources existed to guide their efforts to establish their own branch of the agroecosystem in central Kentucky. The number of published guidebooks multiplied in the period after statehood and augmented the personal information networks that spread hard-won practical knowledge of the landscape to friends and family. The sometimes-conflicting advice that different sources gave their readers provides a window on the diverse approaches Kentuckians applied to the agricultural environment.

[475] "An Ode to Poverty," *Kentucky Gazette,* February 8, 1803.

It also helps explain both the variation from farm to farm and the features that characterized almost every agricultural unit in the Bluegrass.

Some guidebooks offered a virtual step-by-step blueprint that seemed to assure agricultural success. Gilbert Imlay's year-by-year guide published in 1793, for example, promised easy and ample rewards for settlers with few resources but their labor.[476] After erecting a log cabin with the help of their friendly new neighbors, settlers':

> "next object was to open the land for cultivation. There is very little under-wood in any part of this country, so that by cutting up the cane, and girdling the trees, you are sure of a crop of corn. The fertility of the soil amply repays the labourer [sic] for his toil…it is very likely from this imperfect cultivation that the ground will yield from 50 to 60 bushel of corn to the acre. The second crop will be more ample; and as the shade is removed by cutting the timber away, great part [sic] of our land will produce from seventy to one hundred bushels of corn from an acre. This extraordinary fertility enables the farmer who has but a small capital to increase his wealth in a most rapid manner (I mean by wealth the comforts of life.) His cattle and hogs will find sufficient food in the woods, not only for them to subsist upon, but to fatten them. His horses want no provender the greatest part of the year except cane and wild clover; but he may afford to feed them with corn the second year. His garden, with little attention, produces him all the culinary roots and vegetables necessary for his table; and the prolific increase of his hogs and poultry, will furnish him the second year, without fearing to injure his stock, with a plenty of animal food; and in three or four years his stock of cattle and sheep will prove sufficient to supply him with both beef and mutton; and he may continue his plan at the same time of increasing his stock of those useful animals. By the fourth year, provided his is industrious, he may have his plantation in sufficient good order to build a better house…of stone, brick or a framed wooden building."[477]

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[476] Of course, as we have seen, Imlay's choice to elide the issue of purchasing the plot in the first place from the detailed portion of his account did the poorer members of his audience a disservice.

[477] Gilbert Imlay and Cornelius Tiebout, *A Topographical Description of the Western Territory of North America Containing a Succinct Account of Its Climate, Natural History, Population, Agriculture, Manners and Customs* (New York: Samuel Campbell, no. 37, Hanover-Square, 1793), 134-135.

Thus, in just a few years, with no greater investment than his dependents' labor, a man could rise from a poor farmer to a substantial "man of property" according to some regional promoters.[478] Others struck a similarly optimistic tone, but tempered their enthusiasm with a dose of reality. Harry Toulmin, for instance, largely concurred with Imlay on the ease of raising livestock in the first years of settlement, but noted that while it "has been said that the cattle subsist in winter upon the wild cane," the settler must look to the future "when in consequence of the extension of agriculture, there will be no rangers for the cattle in the woods, [and] it will be necessary to provide some little fodder for them."[479] Rather than linger on the prospect of a heavier workload *after* the work of improving the farm, however, Toulmin circled back to the more appealing point that "At present the cane tops, afford them a plentiful subsistence, even when snow is upon the ground," which was rarely "more than two or three days together."[480] Toulmin envisioned a relatively modest enterprise for his readers, suggesting that at as few as thirty acres were necessary to establish an independent and flourishing homestead. Whether potential settlers fully believed such optimistic assessments, those who relocated clearly thought Kentucky offered enticing prospects.

Those who produced guides for friends and family often set their sights higher, but also acknowledged the difficulty of the undertaking. Settler Charles Julian wrote back to those he had left in Virginia and outlined his keys to success in the "new

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[478] Ibid., 147-149.
[479] Harry Toulmin and Thomas D. Clark, ed. *A Description of Kentucky in North America: To which are Prefixed Miscellaneous Observations Respecting the United States* (Lexington: University Press of Kentucky, 1945) originally published 1792, 119.
[480] Ibid., 120.

country," the most important of which was to liquidate their landholdings in the east and invest the proceeds in a sizeable tract of Kentucky lands, Julian suggested at least a thousand tillable acres, and the productive, portable components of the agroecosystem including slaves, livestock and farm implements. Many of these articles should be sold upon arrival in order to take advantage of the elevated prices west of the mountains and to augment the settler's capital reserves. Julian also recommended that slaveowners tap into the value of their chattel by employing "your women & old negroes in spining and young in a nail manufactory." In his view, the cash from these steps was essential to surviving the first touch-and-go years of creating an agricultural system in a new landscape. Julian suggested that his would-be settler emphasize livestock production instead of crops like corn, though he noted that the prudent farmer would "always have plenty & some to grind…for market." He singled sheep out for special praise and referred to the different products that brought high prices on local markets at different times of the year, mutton in December, lambs in July and wool during the spring.[481] That his guidance emphasized the high financial barriers to a successful agricultural operation even for those with the resources to follow his advice and suggested such specific strategies for making the landscape pay reveals a less rosy view of an individual's chances at success than the published guidebooks, but comes closer to the reality that men and women experienced on the ground.

On the ground, the landscape was changing, as even the optimistic promoters noted. Toulmin's observation that the expansion of agriculture meant a corresponding

[481] Charles Julian journal, 1800-1869, Special Collections, University of Kentucky.

reduction in native flora, such as the famous cane only hints at the scope of the transformations. The early statehood period saw a maturation and elaboration of the agroecosystem planted in the previous decades. Carefully cleared, planted, and maintained fields increasingly replaced the rough plots recently hewed from the forest and the landscape took on an increasingly settled and "improved" appearance. The cumulative alteration of the regional environment during this period emerged from the combined impact of individual Kentuckians' decisions and labor to create the infrastructure to support their agricultural project.

Agroecological Infrastructure

Farm infrastructure included everything from the simplest split-rail fence surrounding a kitchen garden to the most elaborate stable holding an expensive thoroughbred stallion. Much of the agricultural work Kentuckians did centered on creating and maintaining the ideal conditions for their preferred biological processes to occur most efficiently; each piece of farm infrastructure they built aimed at this broad goal. Even when the projects aimed at seemingly unrelated goals, such as defining property boundaries with fences, these structures indirectly supported the biological processes encouraged within their boundaries by affirming the landowner's right to control that slice of the landscape. Viewed as a whole, the built environment of farms facilitated a dramatic reordering of the micro-ecologies on thousands of plots across the Bluegrass. The most notable change for contemporary observers, the creation of fields in former forests, might sit somewhat awkwardly under the label "infrastructure" to twenty-first century observers more trained to think of roads and bridges when they see

the term, but each additional "improvement" built on this initial landscape modification. Carving out fields was a necessary precursory to planting and cultivating crops, though the thoroughness with which farmers undertook the task increased as time went along. Whereas in the first years after settlement, a field might still be dotted with the decaying stumps of the forest that preceded it, by first decades of the nineteenth century, Bluegrass farmers expected cleaner fields that allowed for more efficient plowing and more bountiful harvests. An enormous amount of labor, both human and animal, went into the creation and of maintenance these spaces of incredibly reduced biological diversity in order to give the farmers' preferred species the best chance to thrive.

Besides limiting the floral competition that their crops faced in the soil, Bluegrass farmers also took an active hand at trying to control the movement of fauna across the landscape via an increasingly elaborate system of fencing. An early "ACT for preventing trespasses" approved by the state general assembly provided a legal framework by defining a "lawful Enclosure" and establishing penalties for those that encroached upon them.[482] In most cases, the farmer initially constructed split rail fencing to subdivide the land into discreet units and protect the crops from marauding animals, but in the early years of the nineteenth century people increasingly opted for a more durable material and began to permanently segment portions of the landscape behind rock fences. These rock "plantation fences" served as physical barriers establishing distinct zones within the

[482] William Littell, *The Statute Law of Kentucky; with Notes, Prelections, and Observations on the Public Acts.* Vol. 2 (Frankfort: Johnston and Pleasants, 1810), 27.

larger farm and "originally surrounded barnyards, stockyards, paddocks, house yards, graveyards, gardens, pastures, and fields" or marked the line between one landholder and the next.[483] Constructing a rock fence represented a significant up-front investment that was presumably balanced out by the promise of easier maintenance in the future.[484] These fences did not completely replace the split rail and plank varieties that remained popular in the Bluegrass, but they provided a more permanent solution to the perennial question of how best to divide tracts of land while lending an air of substance and stability to the enterprise.

Farm buildings ranked among the most obvious examples of agricultural infrastructure. Depending on an individual's resources and ambition, the built landscape of their operation might differ widely. Substantial capital outlays seemed necessary to well-to-do planters like Nathaniel Hart who hoped to quickly turn their land into a profit-generating slice of the agroecosystem. In 1809 Hart anticipated that the cost of erecting suitable structures would total eight thousand dollars: six thousand for his family residence, one thousand for a distillery, five hundred for a barn and five hundred for a mill. If these expenses did not "break" him, Hart anticipated the infrastructure

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[483] Carolyn Murray-Wooley and Karl Raitz, *Rock Fences of the Bluegrass* (Lexington: University Press of Kentucky, 1992), 23. I include Murray-Wooley and Raitz's terminology "plantation" in order to distinguish between the rock fences built during this period and those "turnpike" fences that became popular during the middle of the nineteenth century, which will be discussed in the next chapter.

[484] Murray-Wooley and Raitz described the labor-intensive process performed by skilled masons whose handiwork has endured for over two centuries now and pointed out the changing rates charged for their services, from $1.00 per day of labor in 1818, to $.50 per yard of fence in 1838, to $2.50-3.00 per rod (approximately 5.5 yards) of fence during the 1840s and 1850s. 24-37, 64-65.

improvements would put him "in a situation to make money."[485] Those operating on a more modest scale faced no less pressing concerns; while they might not have owned a distillery or mill, they certainly utilized them and worried over the value added in comparison with the cost, and while their homes and barns might not have cost thousands, they nonetheless served the same broad purposes.

Farm buildings acted as imperfect fortresses shielding their inhabitants from the forces of the outside world. The idea was to exert a greater level of control over the inside environment and thereby influence the processes occurring within whether the structure was a handsome plantation-style home protecting a family from a winter storm or a smokehouse with meat curing inside. These buildings also took on symbolic meaning as key indicators of the level of "improvement" and state cultivation on a particular farm and across the landscape. By the 1790s, visitors singled out individual farms for the "good taste" of their improvements and local advertisements for land sales stressed the quality of the farm buildings.[486] Two decades later, the appearance of the countryside around Lexington suggested to an eastern observer that "the farmers are generally rich and opulent."[487]

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[485] Nathaniel Hart to James McDowell, June 18, 1809, James McDowell Papers, State Historical Society of Wisconsin, Madison, quoted in Friend "'Work and Be Rich,'" 134.
[486] Lewis Condict, "Journal of a Trip to Kentucky in 1795," *Proceedings of the New Jersey Historical Society* Vol. IV, (1919), 120; see for example John Grant, *Kentucky Gazette*, April 7, 1792: "FOR SALE Five hundred acres of land, part of the tract whereon I now live, with valuable improvements thereon, viz. a good dwelling house, stone spring house, and several other useful houses, Saw and Gristmill, a number of good springs about fifty acres of cleared land—cash and negroes will be taken in payment…"
[487] "Lexington, Kentucky," *Niles Register* Vol. VII, No. 23 January 28, 1815.

While the buildings that housed the farm's produce and residents represented the largest and most visible infrastructure projects on most agricultural units, many also relied on a mostly invisible feature: wells. The limestone that underlay the region, contributing to both the soil's fertility and the rock fences going up in the countryside, also drained rainwater so quickly that some farms lacked ready access to surface water. Instead, many turned their efforts below ground to satisfy their agrarian thirst. A few men, such as John Robert Shaw of Lexington, made a profitable living performing the dangerous tasks necessary to reconfigure the hydrological cycle of micro-landscapes to suit the needs of the agricultural system. Shaw moved to Kentucky in the 1790s to practice his trade as a "water witch" locating and blowing wells for farmers.[488] "Blown up" multiple times, down twelve digits (five fingers and seven toes) and one eye, Shaw nonetheless played an important role in reshaping the water flows on farms across the region and amassed significant wealth for his efforts.[489] His autobiography recounted digging at least 177 wells in the Kentucky, ranging in depth from three to forty-one feet, and substantiating his claim to "have not been an idle performer on the grand theatre of life" or, one might add, the slightly less grand stage of the Bluegrass agroecosystem.[490]

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[488] John Robert Shaw, *The Life & Travels of John Robert Shaw, the Well-Digger, Now Resident in Lexington, Kentucky* (Lexington: Daniel Bradford Printing, 1807), 118.
[489] Ibid., 126, 154. He enumerated the fruits of his labor: "five acres of land adjoining Lexington on which I san excellent quarry, which with industry yields me annually a handsome profit" complete with "considerable improvements, such as a dwelling house, spring house, smoke house, wash house and waggon house" worth a total of four thousand dollars.
[490] Ibid., 149.

Wells like those dug by Shaw essentially rewrote the ecological limits on a given slice of land by allowing farmers to tap into previously inaccessible water resources.

More visible interventions in the region's hydrological cycles also doted the landscape in the form of artificial ponds, springhouses, and cisterns.[491] Each of these structures allowed Kentuckians to redirect rainwater from its previous course through the landscape to a location convenient for farmers to put to agricultural use. Artificial ponds, often constructed using similar techniques to those used for rock fences, could trap thousands of gallons of water that would otherwise have been "lost" to natural process of drainage and runoff, which facilitated things like an intensification of livestock concentrations by blunting the edge of periodic dry spells. Cisterns also collected rainwater to save for later use, while springhouses "improved" on naturally-occurring springs by opening up a larger basin for the water to pool and shading them with buildings to create a relatively cool, year-round space.

John Breckinridge's Cabell's Dale Farm

The specific agricultural infrastructure on any individual farm reflected the farmer's plans and goals, which were influenced by the resources he perceived in the landscape. While virtually all Bluegrass farms demonstrated some iteration of the above infrastructure features, they existed in a variety of forms that mirrored the diverse approaches taken by regional farmers. Some opted to focus on raising livestock, as Charles Julian suggested, and tailored the landscape to suit their animals' needs. The operation on Cabell's Dale, John Breckinridge's home farm, provides an early example of

[491] This list leaves out the dams that will be discussed in the section on mills that follows.

the type of diversified agriculture, with a special emphasis on breeding high value livestock, that came to characterize the Bluegrass during the antebellum period.

Breckinridge "knew the type of farm he wanted even before he moved to Kentucky," according to his biographer, Lowell Harrison. Harrison argued that Breckinridge's experience with "the effects of poor methods and intensive one-crop cultivation" in Virginia left him "determined that similar evils should not blight his Kentucky acres."[492] Whether the sources of Breckinridge's motivations were as clear-cut in his mind as they were in his biographer's account, the approach he took to agriculture on his Fayette County acres did exemplify a diversified approach that avoided a reliance on any one crop or species of animal. When the Breckinridge family finally completed their multi-stage move to their permanent home in 1794, Breckinridge had already guided the agricultural activities of tenants and slaves settled on the land for a couple of years and their labor allowed his project to ramp up in short order. Within a few years, Cabell's Dale produced virtually every crop found in the Bluegrass including hemp, corn, wheat, barley, oats, hay and grass seed, while the orchard yielded a variety of fruit such as cherries, peaches, apples, and plums. Closer to home, Breckinridge's wife Polly supervised a large kitchen garden that added further diversity to the family diet.[493] Tobacco was notably missing from the list of cultivated species and this choice distinguished Breckinridge from some of his neighbors, as advertisements for tobacco in local papers and the Kentucky hogsheads deposited in New Orleans during the period

[492] Harrison, *Breckinridge*, 114.
[493] Ibid., 115.

demonstrate. Yet the crop did not come to dominant, or degrade, the Bluegrass landscape or agricultural economy during this period as it had other regions at other times.[494] The difficulty of transporting tobacco from many spots in central Kentucky to suitable waterways militated against too heavy a reliance on the crop, as did the lessons learned east of the mountains.

Refining Livestock Operations

Livestock breeding represented one important approach farmers took to replace the income that might have come from tobacco in a different context. For many, crops acted as much as intermediary steps as a final product in their agricultural process. Fields of hay, wheat and oats provided the raw materials to support expanding stock populations, which served to concentrate the value of the crops in bodies of animals. The increase on Cabell's Dale helps exemplify this trend. In 1796, the farm held 23 horses, twelve cattle, 50 hogs, and 36 sheep; a decade later, the numbers increased across the board to 128 horses, 70 cattle, approximately 100 hogs, and 103 sheep.[495] Not only did the number of animals grow, some Kentuckians also paid increasing attention to the pedigrees of their stock, hoping to increase their value by encouraging the most desired attributes in those particular species. Stud notices appeared frequently in the *Kentucky Gazette* altering readers to the presence of stallions descended from

[494] It should, of course, be added that tobacco production had these effects in later historical contexts as well.

[495] Ibid., 122. Harrison also pointed out that the second set of figures had recently been reduced by Breckinridge's recent wedding gift of three horses, 24 cattle, six hogs, and 31 sheep to his daughter and son-in-law. It also bears emphasizing that Breckinridge sold stock throughout the period, so

celebrated lines available to breed with local mares for reasonable fees; for example "Tippoo Saib" the offspring of the "famous imported running horse Lath" and the "celebrated mare Brandon the dam of Pilgrim, Celar, Clouds, Buckskin, Cataline and Fitzpartner, horses well known to be the best foal getters in Virginia" stood ready to "cover mares at the low price of forty shillings…if paid in merchantable produce."[496] The practice of selling breeding rights helped to spread the DNA of the most desirable individuals further into regional stock populations that would otherwise have been possible.[497] By the second decade of the nineteenth century, Kentucky's reputation for high quality horse stock already extended beyond the Bluegrass state; visitor William

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[496] *Kentucky Gazette*, March 3, 1792. For a later example, see the notice for "Buzzard" a $5,500 stallion that stood stud at Ashland in 1808, *Kentucky Gazette*, April 5, 1808.
[497] John Breckinridge also exemplified this trend as several pedigreed-stallions stood stud at Cabell's Dale during the first decade of the nineteenth century including the English-bred "Speculator…a handsome seven-year-old bay nearly sixteen-hands high" with "a fine racing record as a four-year-old." Breckinridge bred the stallion to his own mares and advertised that he was available to cover any others in the neighborhood for ten dollars if paid up front or twenty on credit. Harrison, *Breckinridge*, 123. The horse was initially owned by a partnership between Breckinridge and two other men and the partners moved Speculator around the region, offering his services in different counties during different seasons. For example, see the notice from Breckinridge, John Hoomes, and H. Taylor in the *Kentucky Gazette,* July 16, 1802; "SPECULATOR WILL stand a Fall Season at H. Taylor's farm, in Clarke county, and bet let to mares at the reduced price of Fourteen Dollars, to be paid on or before the first day of November next ensuing, or Twelve Dollars Cash in hand, with One Dollar to the Groom in either instance. Season to commence, on the 15th of August and end 15th October." By the time of his death, the patriotically-named "Bald Eagle" performed the stud services on Cabell's Dale and Breckinridge continued to plan for the future of the "Speculator fillies" and others from that line, including by breeding some of them to his male donkey and the choicest individuals to "Bald Eagle." Most of the male offspring in the Speculator line residing on Cabell's Dale were "put in the Plough," which "improved" or added value to both the landscape and the animals since they prepared fields for agriculture and honed their own laboring skills. Lowell H. Harrison, ed., "John Breckinridge's Bluegrass Plantation, Agreement to Operate, 1806," *The Filson Club History Quarterly*, Vol. 31 (April, 1957), 110.

Darby noted "some of the largest, fleetest, and finest individuals of that noble quadruped yet produced in the United States…come from Kentucky."[498]

Many Kentuckians viewed increasing the number of horses as a vital aspect of their agricultural project because of their wide utility. A study of the tax returns of 1800 revealed horses ubiquity in the landscape.[499] Over ninety percent of taxpayers owned at least one horse, including nineteen in twenty landowners, who averaged four horses per owner, and almost eight in ten non-landowning taxpayers, who owned slightly more than two on average.[500] On the whole, horses outnumbered white men approximately three to one, an understandable ratio in light of the many ways in which horses facilitated human activities.[501] Euro-Americans deemed equine companions a virtual necessity from the moment they first discovered the Bluegrass Region during the 1770s and many of their basic functions remained largely unchanged for the next century. Most essentially, horses expanded humans range of motion across the landscape, allowing them to move longer distances, carrying larger burdens, faster and with less effort. These enhancements mattered a great deal whether the task involved moving a

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[498] William Darby, *The Emigrant's Guide to the Western and Southwestern States and Territories* (New York: Kirk and Mercian, 1818), 205.
[499] Lee Soltow, "Horse Owners in Kentucky in 1800" *Register of the Kentucky Historical Society* 79 (1981) 203-210.
[500] Ibid., 204.
[501] While Soltow's analysis primarily focused on Kentucky as a whole, he noted that Woodford County led the state in horse-to-white-male-adult ratio at 4.1, followed by a "series of other Bluegrass counties," which meant the equine population likely constituted an even more prominent aspect of the central Kentucky landscape than in the rest of the "region of horses." 208, 204.

family and their possessions across the continental divide, pulling a plow across a field, or hauling produce to market.[502]

The attention paid to individual equine pedigrees exceeded that afforded other species during this period, owing to their greater per-animal value, but a similar concern for "improving" their livestock animated many husbandmen's approach to all of their stock. Cabell's Dale specialized in horse breeding, for example, yet toward the end of his life Breckinridge developed a side venture in the production of mules. In the instructions he left his overseer when he intended to leave for Washington in the fall of 1806, Breckinridge noted a number of young mules that had been sold previously whose new owner would be stopping by to collect them and he also directed his agent that if any "mares should be in season before [his] return next spring, put them all to my Jack."[503] Like their cousins, horses, mules held particular value due to their ability to supplement human power for manipulating the landscape, a role an individual mule might play for decades, walking miles up and down field rows in front of the plow every year. Working oxen played a similar part on many Bluegrass farms and their specific laboring abilities influenced the value of any given animal.

Non-working cattle, those whose bodies provided Kentuckians with beef, dairy, leather and other materials during this period, held value for their physical attributes

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[502] Soltow estimated, for example, that each horse could productively work between ten and fifteen cultivated acres. 205.

[503] Lowell H. Harrison, ed., "John Breckinridge's Bluegrass Plantation, Agreement to Operate, 1806," *The Filson Club History Quarterly*, Vol. 31 (April, 1957), 108. Unfortunately for Breckinridge and his mule operation, he fell ill and died shortly after writing these instructions.

more than for any specific skills they possessed so stockmen focused more on the overall appearance and health of the herd than the linage of any individual. Animals possessing the bodily features a breeder prized, such as a powerful young bull that gained weight faster than his brothers, were made to reproduce prolifically with the aim of successive generations increasingly reflecting that trait. While smaller and omnivorous, hogs shared similarities with cattle in terms of breeders' overriding concern with the qualities of the meat in their drove, rather than the disposition or intelligence of individual animals. Bluegrass residents in the first decades of the nineteenth century often valued sheep as much for their wool as for their meat. Wool functioned as mass, rather than individual, commodity in the sense that a flock's winter coats were harvested together and treated as a homogenous unit on the market. As with beef, this encouraged husbandmen to consider the qualities of their flock as a whole rather than focusing on exceptional individuals. Kentucky sheep raisers often chose a specific breed that they believed produced superior wool and maintained the flock from year to year, culling from and adding to the group according to their needs.

That some Bluegrass farmers viewed their harvests as a halfway house for the landscape's biological production on the journey into the bodies of their livestock should not obscure the expanding flows of crops exported from the region. Traveling French botanist François André Michaux trained his keen eye on the region's burgeoning agriculture during his 1802 trip west of the Alleghany Mountains and his observations reveal a countryside increasingly geared toward producing a surplus for market, but that also met many of its occupants' material needs directly. Since it was "by the culture of

Indian corn that all those who form[ed] establishments commence[d]," cornfields represent a logical place to begin an examination of the expanding cultivated portions of the landscape.[504] After clearing these fields of their vegetation, Kentuckians used a plow to open "furrows about three feet from each other," which they cut perpendicularly with "others at an equal distance, and set seven or eight grains at the points of intersection."[505] As the seeds grew, only "two or three plants [were] left in the ground…in order to give free scope for the vegetation, and to insure a more abundant harvest."[506] In addition to weeding throughout the growing season, some cultivators also gathered the leaves from the plants' stalks as they withered, which they "reserved as a winter sustenance for horses" based on the belief that they "prefer[ed] that kind of forage to the best hay."[507] Michaux estimated that an individual might cultivate eight to ten acres in a season.[508] Harvest occurred in the fall and often saw more people working in the field than at any other point in the yearly calendar, whether those temporary workers were paid laborers or neighbors who enjoyed a reciprocal relationship. The corn reached a height of ten to twelve feet and yielded between forty and one hundred bushels depending on the specific attributes of the field and season.[509] The wide prevalence of the crop and the level of personal attention it drew meant cornfields

[504] F. A. Michaux, *Travels to the West of the Alleghany Mountains…Undertaken in the Year 1802* Vol. 3, (London: B. Crosby & Co., 1805), 237.
[505] Ibid.
[506] Ibid.
[507] Ibid.
[508] Ibid., 238.
[509] Ibid.

figured prominently in both the physical landscape and Kentuckians' experience of the agricultural environment.

Michaux also noted that inhabitants tended to think of corn "much more…with regard to exportation than as an object of consumption" although it remained a staple of the central Kentucky diet.[510] The volume of corn exported had increased dramatically since James Wilkinson made the first speculative trip down the Mississippi, which contributed to their agitation for secure access to the river, as we have seen. In most cases the corn underwent some form of processing prior to making the journey, whether in mills being ground into meal or flour or in distilleries where it became the bourbon whiskey that became synonymous with the state.[511] A notice in the *Kentucky Gazette* during August 1802 from an inspector on the Ohio River at Louisville gave idea of the extent of the corn products flowing out from the Bluegrass; during the first six months of the year the export totals included over 85,000 barrels of corn flour and almost 25,000 gallons of "Spirits distilled of domestic produce" compared with only slightly more than 1,200 bushels of unprocessed corn.[512] Even as central Kentuckians contributed a large portion of the western corn exported, bumper crops could drive down market prices and the overall success of the agricultural landscape in producing more of the staples might undermine individual farmer's economic prospects. Michaux observed that the "harvest of 1802 was so plentiful…at Lexinton [sic], corn…had never

[510]Ibid.
[511] Both mills and stills are discussed below.
[512] *Kentucky Gazette*, August 6, 1802.

been known at so low a price" and residents worried "that at this price the culture of corn cannot support itself as an object of commerce."[513]

Some commentators argued that the instability of the system and the volatility of commodity prices stemmed from an overeager population too focused on market production. A series of editorials in the *Kentucky Gazette* demonstrated the on-going tensions over which Bluegrass farmers should participate in the market on what terms, or, in framed in slightly different terms, divergent views on the purpose of the agroecosystem and how best to achieve it. Contributor "Aristedes" wrote in to diagnose the problems he saw with the region's agriculture and argued the solution was essentially for small farmers to remember their place and leave the marketing of crops to those most suited to the task; selling to an agent was one thing, but seemingly every man with a few bushels of corn to his name entering the market on their own had caused chaos, from his perspective.[514]

Pastures and Woodlands in the Agroecosystem

The focus on crops and cultivation should not distract from the other ecological zones that remained prominent components of a mixed landscape. Pastures and woodlands, in particular, served important functions within the agroecosystem and displayed different mixtures of cultural and natural influences than those found in the

[513] Michaux, 239. He also believed that global geopolitical developments affected the corn market in central Kentucky, attributing the 1802-drop to the brief interlude of peace in Europe after the Treaty of Amiens halted hostilities between Great Britain and the French Republic, but before the Napoleonic Wars plunged the continent back into chaos.

[514] "Aristedes," *Kentucky Gazette,* September 13, October 25, 1803 and March 13, 1804.

more heavily managed fields. In the pastures that held increasing numbers of domesticated animals, many Bluegrass husbandmen consciously decided to conserve relics of the previous ecological regime, such as stately oaks and elms, for both practical and aesthetic reasons. Practically, the shade provided their stock protection from the hot summer sun and aesthetically the trees contributed to what Henry Clay called Kentucky's "natural parks…beautiful undulating country, everywhere exhibiting combinations of grass and trees," which "conspire to render home delightful."[515] In some ways the pastures that formed a key component of the grazing and livestock breeding system established during this period functioned as simplified versions of the ecosystems they replaced; the degree of openness increased as stockmen removed groundcover and some of the trees that might compete with the grasses they preferred and they also tried to prevent unwanted animals from browsing, but the broad contours remained similar to the woodland savannah that characterized some spaces in the landscape prior to American settlement: medium and large herbivores foraging in a luxuriant bed of grasses, shaded beneath the open canopy of native trees. These "natural parks" tapped into existing ecological processes and modified them to meet the Kentuckians' needs. That a modern visitor to the stock farms of the Bluegrass encounters largely similar vistas speaks to the sustainability of the approach.

Old growth woodland of the sort that still covered a large percentage of the landscape at the turn of the nineteenth century, however, steadily retreated during the

[515] Clay quoted in Amelia Rogers, *Ashland: The Home of Henry Clay* (University of Kentucky, M.A. Thesis, 1934), 17.

first decades of statehood and through the antebellum period. As one recent study of early Kentucky agriculture noted, "Deforestation became an obsession" for those seeking to establish farms and residents "commonly worked on clearing a field rather than protecting the forests."[516] While the desire to clear land for crops and pasture drove much of the deforestation, the original woods of the region also served key functions in the built landscape described above. Everything from the first rough cabin erected to establish a claim to a refined plantation-style home drew on local lumber supplies. Careful landowners aimed to match their need to clear tracts for fields with their need for lumber to enhance their holdings' infrastructure. When Breckinridge advised his overseer, John Payne, on which new acres to clear and place into cultivation, he also instructed Payne to "cut enough of the good logs of lasting timber to make a corn house 24 feet by 12; & 10 feet pitch...Raise it on three large locust logs & have the bottom made close with puncheons."[517] Breckinridge planned to top the structure with shingles split from a good oak on Cabell's Dale by Jim and George, his enslaved carpenters.[518] Breckinridge also told Payne to allow the slaves assigned to clear the plot to "save small logs enough to make cabbins for themselves" since "there will not probably be house room enough for them; and they do not like to be crowded together."[519] The raw materials found in the woodlands of the Bluegrass thus

[516] Friend, "'Work & Be Rich,'" 134.
[517] Harrison, ed., "Breckinridge's Agreement to Operate," 110.
[518] Ibid., 110.
[519] Ibid., 110.

contributed to the efforts of even the most oppressed residents to fashion a better life for themselves.[520]

While the woods could be simultaneously viewed as obstacles to overcome before cultivation could commence or as storehouses of lumber to be conserved for future use, they also functioned as the remnants of the frontier, sites for activities such as hunting and fishing. Some husbandmen continued to run their stock in the woods with little concern for whether or not their animals wandered off their property, though this phenomenon caused increasing tension as the land became more densely populated and ultimately declined and virtually disappeared from the agricultural system. While the woodlots qualified as "unimproved" portions of the landscape and residents most often looked forward to the day when they would be brought into cultivation, but they remained an important component in the wider tapestry of landuse, performing vital, if largely invisible, ecological functions.

Mills and Stills

The local mill was one feature of the rural landscape that held outsized significance in comparison with its size. Milldams erected across creeks and streams altered the immediate environment tremendously as they redirected natural water flows to tap into the energy of gravity pulling the water forward and put that power to human use. The falling water might drive machinery with a variety of purposes from grinding grains to sawing lumber. They might also, however, disrupt other uses of the same water resources, which could lead to controversies over which use would take

[520] This theme will be explored further in the section on rural slavery that follows.

priority. A Bourbon County example helps illustrate the ways in which mills could bring different elements of the agroecosystem into tension, but nonetheless fulfilled essential roles in facilitating its spread across the landscape. Laban Shipp constructed a milldam on Stoner's Fork to power a gristmill in which he planned to grind his grain, as well as that of his neighbors for a fee. While many appreciated the new mill and the labor it saved them from grinding their own crops by hand, others took issue with the location because it blocked their water access to the only tobacco warehouse in the county. Tobacco cultivators, along with some who fished in the river for subsistence, felt their rights had been obstructed and took Shipp to court, while supporters of the mill resisted the idea that the agroecological needs of the tobacco growers to export their hogsheads should trump their need to have their corn ground without choosing between a thirty mile overland trek or the labor of grinding it themselves.[521] The Bourbon County Court settled the controversy by ruling Shipp had to build locks that would allow boat traffic and fishing to continue in order to keep his gristmill operational.[522] Yet the sides identified here somewhat oversimplify the issue since tobacco producers were usually corn cultivators as well and virtually any farmer might decide to grow an acre or two of tobacco. In fact, the compromise measure reached by the court was probably more representative than an effort to form clear distinctions between competing voices over the direction the agroecosystem should take. Not only were farmers and mill owners often the same people, as we saw with Nathanial Hart above, but their interests in the

[521] Friend, "'Work & Be Rich,'" 134-135.
[522] Ibid., 135.

two roles were usually complementary. Disagreements typically centered on questions of specifics rather than on general issues of purpose or overall approach to agriculture. The efficiency offered by gristmills encouraged greater grain production by removing one of the earlier bottlenecks in the process: transforming the raw cereals into a more easily usable form.

Stills played a similar role in transforming the primary production of the Bluegrass environment into a more portable and valuable form. Grains made potable, and potent, by the application of force, addition of water, yeast and heat, held more value per unit of weight and the limited local market for surplus grain, as grain, in relation to the bountiful supplies in good seasons sometimes encouraged profit-minded farmers to either set up a distilling operation for themselves, often on their own farms.[523] Others outsourced the liquor production to their neighbors, either by simply selling them crops such as corn, rye, wheat, and barley, or by exchanging some of their surplus for a share of the final product from the still. The spirits produced in these stills represented a concentration of value into a more portable form; estimates suggest a horse could carry the whiskey from twenty-four bushels of grain, but only four bushels of the raw grain.[524] The distance to a suitable market and subsequent cost of

[523] By 1810, at least 2,000 distilleries operated in Kentucky, producing over 2.2 million gallons of liquor. The six Inner Bluegrass counties that form the core of this study accounted for nearly a quarter of the distilleries, over 28 percent of the volume produced in the state, and an estimated value that exceeded $200,000. Tench Coxe, ed., *A Statement of the Arts and Manufactures of the United States of America for the Year 1810* (Philadelphia: A. Cornman Jr. Printing, 1814), 123-124.

[524] Charles R. Staples, *The History of Pioneer Lexington, 1779-1806* Foreword by Thomas D. Clark (Lexington: University Press of Kentucky, 1996) reprint of 1939 edition, 33.

transportation, the fertility of the land, the fecundity of maize, and cultural traditions all combined to encourage Kentuckians to distill spirits for sale, ultimately contributing to the rise of bourbon whiskey, which became one of the region's most celebrated products.[525]

If mills and stills acted as engines of landscape change by transforming the physical properties of the crops it produced, agricultural inspection stations and warehouses functioned as sites of ideological transformation in which individual plants became interchangeable commodities. Even prior to statehood, Kentuckians petitioned their government to establish inspection stations on the region's waterways to facilitate the regulation of crops being exported.[526] The deposit slips for commodities stored in the warehouses also functioned as a sort of currency in the specie-strapped region and could even be used to pay Virginia tax bills.[527] After 1792, the new state government quickly took up the task and created a system of inspection stations and procedures aimed at ensuring both the quality of exports and the state's agricultural reputation. The 1795 act "regulating the inspection of flour and hemp" provides a window on the intellectual work performed inside these stations and warehouses.[528] The regulations

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[525] As it remains today. The label "bourbon" can apply to other American whiskies, distilled outside of Kentucky, despite what you might hear in the Bluegrass state; the main requirements distinguishing bourbon from other whiskies are that the mash bill or recipe must contain at least 51 percent corn and the raw clear liquor must age in newly charred oak barrels.

[526] Robertson, James Rood. *Petitions of the Early Inhabitants of Kentucky to the General Assembly of Virginia, 1769 to 1792*. (Louisville: Filson Club Publications, 1914)

[527] Charles R. Staples, *The History of Pioneer Lexington, 1779-1806,* 32.

[528] William Littell and Jacob Swigert, *A Digest of the Statute Law of Kentucky: Being a Collection of All the Acts of the General Assembly of a Public and Permanent Nature,*

for flour covered everything from the exact dimensions of the barrel staves to the fineness of the powder and required that the miller "mark…upon every cask…the tare and net weight thereof, and shall likewise brand thereon his own name."[529] Each barrel was to hold exactly 196 pounds of flour, to be unpacked and weighed by the inspector at the request of the purchaser. The inspector's authority extended over every barrel intended for export and his appraisal earned each unit the label "Superfine," "Fine" or "Condemned" and no matter his judgment, the would-be exporter owed the same fee for the service.[530] The statute also established penalties for attempting to circumvent the system, either by skipping inspection entirely or by disregarding the inspector's rejection of the flour and exporting the barrel anyway. A similar framework governed hemp exports. The state legislature defined "merchantable hemp" as either "winter or water rotted, dry, bright, clean and strong, and well bound in bundles of at least one hundred and twelve pounds."[531] The inspector marked only those bundles meeting these exacting standards with the hemp owner's name, the weight of the bundle and location of the warehouse where it would be stored until exported.[532] These elaborate systems of regulation and classification functioned to transform individual plants into homogenous commodities.[533]

From the Commencement of the Government to May Session 1822 (Frankfort: Kendall and Russell, 1822), 602.

[529] Littell, *A Digest*, 602-603.

[530] Ibid., 604-605.

[531] Ibid., 605-606.

[532] Ibid., 606.

[533] Even when the state legislature changed the regulations on flour exports in 1815 to place the burden of requesting inspection on the purchaser, the public continued to apply similar systems of classification for flour, hemp and other agricultural products,

The Limits of Agroecological Control

Before crops made it to the mill, still or inspection station, they had to survive their time in the field. Farmers fretted over the impacts that seemingly runaway pest populations would have on their harvests and fought an unending battle against their encroachments. The multiplication of the pest species did not occur solely in the minds of frustrated Kentuckians, but actually represented an unintended consequence of the implementation of the agroecosystem. Species that thrive in human-created agricultural landscapes target people's fields for similar reasons to those that prompt folks to plant them: they represent huge concentrations of easy calories. The veritable buffets of monoculture cornfields, for example, functioned as micro-ecologies with unprecedentedly high carrying capacities for species such as squirrels, crows and certain insects. By 1795, pest populations seemed to have reached epidemic proportions in the Bluegrass and the state legislature directed every taxpayer in Fayette County to "present twenty-five crow or squirrel scalps to a justice of the peace" before September or be subject to a fine.[534] In other instances, the community turned pest control into a festive activity, as when forty hunters divided into teams to see which could shoot the most squirrels in the course of a day, all told "they killed 5,442 squirrels, and bets were offered that the same company could kill double that number the day following."[535] In an economic system in which everything sprang from agriculture, the threat posed by an

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which demonstrates the utility of abstraction and commodification amidst an expanding agricultural market economy. Ibid., 608.

[534] *Kentucky Session Laws*, November, 1795, session, Chap. XXVII, Sec. 1, quoted in Harrison, "Breckinridge: Jeffersonian Republican," 133.

[535] *Kentucky Gazette*, May 18, 1801.

infestation represented a threat to the prosperity of the whole community and particularly nasty outbreaks might virtually wipeout a season's production in a few days as in 1798 and 1804 when the "Hessian fly" invaded and destroyed the wheat crop.[536] In 1806 a species of stinging worms combined with drought to leave Kentuckians hoping "there will still be a sufficiency of grain made for home consumption," but fearing "we shall raise nothing for exportation."[537] The editor of the *Kentucky Gazette* described the event in almost apocalyptic tones:

> The ravages committed by the *Army Worm* is inconceivable to those who have not witnessed its depredations. Many meadows are left with scarcely a spear of grass standing; and the wheat, rye, and corn, have not shared a much better fate—The planters are generally re-planting their fields of corn; hoping the worms will disappear, before it is out of the ground…The Editor will thank any Gentlemen for a particular account of this worm, with the best probable method of guarding against its depredations in future seasons.[538]

These types of incidents acted as unwelcome reminders of the limits to Kentuckians' control over the landscape, even as they expanded and formalized the agroecosystem.

Slavery was another aspect of the system that escaped its architects' best efforts to fully control. Enslaved Kentuckians played essential roles in creating and maintaining the agricultural landscape and the institution's supporters guided it through the potentially destabilizing period surrounding the constitutional conventions to emerge on a solid legal footing, as we have seen, but these slaveholder accomplishments could never bring the complete peace of mind they sought precisely because of the *forced* nature of the labor they brought to bear on the landscape. For slaveholders, their ideal

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[536] Harrison, "Breckinridge: Jeffersonian Republican," 116.
[537] *Kentucky Gazette*, August 2, 1806.
[538] Ibid., June 7, 1806.

agroecosystem depended on the physical power that could be extracted from the resistant bodies of others, which added a low level of uncertainty to the whole system. White unease with the agroecosystem's dependence on black labor performed without choice or wages, whether subconscious or spelled-out, contributed to hyper-vigilant responses to national events like Gabriel's Conspiracy in Virginia, but also to the prevalence and persistence of notices offering rewards for runaway slaves in local papers.[539] The two represented the same qualitative threat to the agroecosystem slaveholders had forced to be erected, only the magnitude differed; a vast rumored slave uprising against the ruling class functioned essentially as the white nightmare version of an individual slave rejecting her enslavement and seizing her freedom through bold, direct action. Both revealed the limits of slaveholder control and their repetition could undermine the institution of slavery itself. As with other aspects of the agroecosystem, however, in the absence of an active display of the limits of their control, many slaveholders blithely slipped back into an outsized view of their own power to direct events.

One of the ways in which Kentuckians adapted the institution of slavery to the specific Bluegrass context during this period was by creating an elaborate system of slave rentals and hiring out. In some cases, farmers, whether nominally slaveholders or not, rented enslaved men and women from their neighbors in order to get through a

[539] For the fevered reports on Gabriel's Conspiracy and local measures to protect whites from an uprising of slaves see *Kentucky Gazette* July 31, September 29, 1800. Runaway slave notices appear in each of the hundreds of issues I have examined in my studies of the region that precede the ratification of the Thirteenth Amendment.

particularly heavy period of work in the fields and in these instances rural slaves typically performed similar labor on both farms. When non-slaveholders rented enslaved laborers on a temporary basis, it lent stability to the system by giving a broader segment of the white population a direct example of the ways in which they too benefited from black slavery. In many cases, however, slave rental agreements from this period indicate rural blacks had been leased to an urban or industrial operation, as we shall see. While the urban labor might entail dangerous machinery, it also provided new experiences and skills for many black Kentuckians and potentially a less oppressive living situation or even some small payments for quality work. From an agroecological perspective, this pattern helped knit agriculture and manufacturing, the countryside and the towns, together into one cohesive system, stimulating each other rather than competing for resources.

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Chapter Seven: Commercial & Industrial Roots

Virtually every factor that influenced the development of central Kentucky's agricultural landscape also contributed to the early industry and commerce in the region. Like the movement for independent statehood, geography had a profound effect on the commercial and industrial roots established by Kentuckians in the first years and decades after settlement. Lexington rose to prominence during the period as the "Athens of the western states," a hub of commerce, culture and proto-industry driving agricultural development in the countryside, but other towns, such as Georgetown and Paris, also played similar roles within their counties.[540] The urban centers that sprang up in central Kentucky during the last decades of the eighteenth century and expanded into the nineteenth operated as complementary features to the rural economy.

Bluegrass Agriculture and the Market

In many ways, early towns acted as catalysts charging the reaction between the Euro-American agriculturalists and the Bluegrass environment. All the components for a dramatic landscape reconfiguration were in place: fertile soils, increasing numbers of settlers including enslaved laborers, and a strong desire to sell their surplus, but without the urban centers and the market connections they provided, the agricultural system could not have spread as rapidly. They typically served as the first link in the chain of market connections linking the fields of the Bluegrass to national and international economic currents and the last link in the chain bringing non-local goods into the region.

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[540] William Darby, *The Emigrant's Guide to the Western and Southwestern States and Territories* (New York: Kirk and Mercian, 1818), 206. Georgetown and Paris are the countyseats of Scott and Bourbon Counties, respectively.

The early commercial development of Lexington demonstrates this symbiotic relationship between central Kentucky towns and the surrounding rural landscape. Located at center of the fertile Bluegrass Region at the end of a long transportation route, whether overland through the mountains, or down the Ohio River, the town rose in tandem with the rising wealth of Kentucky farmers. The long distance from eastern urban centers encouraged the emergence of Lexington as a depot for the rest of the region, the place where "imported" goods first arrived in the Bluegrass before defusing into the landscape. In a similar way, the city acted as a gathering point for the agricultural produce of the countryside where crops and stock were marketed, in some cases before export from the region.[541] Much of the commerce that took place in Lexington and other Bluegrass towns relied on barter trade, but typically items and transactions were appraised in cash terms; for example, if a farmer traded one hundred pounds of hemp with a value of $4.17 to a Lexington merchant in exchange for ten pounds of chocolate valued at $4.00, it would have left him enough credit to purchase a pound of ginseng as well.[542] Given the on-going problems with the currency supply in

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[541] See Richard C. Wade, *The Urban Frontier: Pioneer Life in Early Pittsburgh, Cincinnati, Lexington, Louisville, and St. Louis* (Chicago: University of Chicago Press, 1964), 18-22 on the "entrepôt origins and functions" of Lexington. Elizabeth A. Perkins labeled the resulting commercial system "a triangular trade…between Kentucky, New Orleans, and the East" in which merchants "imported goods on credit" from the eastern seaboard, "received country produce in payment from their customers" and facilitated flatboats to transport the agricultural products to market down the various river systems that emptied into the Gulf of Mexico, Perkins, "The Consumer Frontier: Household Consumption in Early Kentucky," *The Journal of American History*, Vol. 78, No. 2 (Sep., 1991), 506.

[542] Hazel Dicken Garcia, "'A Great Deal of Money…': Notes on Kentucky Costs, 1786-1792" *Register of the Kentucky Historical Society* (Summer 1979), Table 3, 192-193 and Table 6, 199. It should be noted that the price of hemp varied dramatically year-to-year

Kentucky, these urban merchants played a key role in allowing the degree of market participation seen in the countryside.

While Lexington merchants stimulated the demand for these market connections, but they did not create it. Evidence suggests many settlers in Kentucky arrived with the expectation of continued economic connections with the rest of the nation and Atlantic world, indeed Richard Henderson established the first retail outlet in one of the four fortified blockhouses erected at Boonesborough in 1775.[543] When statehood arrived in 1792, at least twenty stores operated in Lexington even though it was "then principally a log village."[544] These operations varied in size, but each tapped into the rising commercial currents animating the agricultural economy. A visitor in 1794 called the town "the greatest place for dealing [he] ever saw."[545] Early Kentuckians' material desires varied, but most seemed to want something only available via long distance trade. Whether the customer was Jack, an enslaved man who traded goods such as squirrel skins for imported items including tea, or a white laborer who paid a

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according to Garcia's findings so that what might have taken 100 pounds of hemp in 1789, might "cost" only 80 by 1791, but the broader principle about the way urban merchants allowed the market economy to function in the countryside amidst the on-going difficulties with the supply of currency applied regardless of fluctuations in commodity prices.

[543] Elizabeth A. Perkins, "The Consumer Frontier: Household Consumption in Early Kentucky," *The Journal of American History*, Vol. 78, No. 2 (Sep., 1991), 489. Perkins' detailed examination of frontier consumer activity concluded that the "quest for a better life that led women and men across the Appalachians thus tied the Kentucky frontier into the Atlantic economy," 510.

[544] Charles R. Staples, *The History of Pioneer Lexington, 1779-1806* Foreword by Thomas D. Clark (Lexington: University Press of Kentucky, 1996) reprint of 1939 edition, 77, 80.

[545] "Journal of Needham Parry, 1794" *Register of the Kentucky State Historical Society* October 1936, 382.

day's wage for a pound of coffee, the merchant's ledgers reveal a mechanism that gave value to the physical work transforming the landscape.[546] A quick look at any Lexington newspaper from the period shows a wide array of offerings from an assortment of dealers, each noting their willingness to trade for agricultural items.[547] These advertisements make the stakes clear: agricultural success provided access to material goods. Early Central Kentuckians' embrace of this incentive structure helps explain the rapid expansion of the agricultural spaces within the broader landscape. As the primary commercial hub in the Bluegrass, Lexington functioned as a key cog in the agroecological system by facilitating the commerce its architects and labor force demanded.

Proto-Industry in the Bluegrass

In a similar way, relatively small proto-industrial spaces played an outsized role in determining the composition of the broader landscape. This was especially true of goods that were too bulky or for which demand was too great to be feasibly supplied from the east. The salt works established by settlers soon after their arrival provide an early example of the relationship between small semi-industrial spaces and the broad rural landscape they dotted. Salt served important functions, particularly in food preservation, and securing a consistent supply was one of the first tasks any settlement project needed to complete. During the frontier period, native warriors sometimes took

[546] Perkins, 497, 505.
[547] The front page of the *Kentucky Gazette*, March 12, 1805, for example, features five merchant firms offering everything from "Chintezes and calicoes of the newest patterns" to "anvils, vices…& whip saws."

advantage of this pioneer need by attacking crews at work boiling down brackish water to its salty residue.[548]In the decades after statehood, the process lost the drama of exposure to potential Shawnee attack, but retained most of the physical components. A French visitor did not bother hiding his disdain for "a poor salt manufactory" where "it require[d] a thousand gallons to make a bushel of salt weighing fifty pounds" and wondering at "the consumption of wood to obtain so considerable an evaporation" that doomed "the forests around" to be "speedily wasted."[549] While this observer focused on the manufactory's impact on the immediate environment caused by deforestation linked to its huge fuel demands, one might also point to the role such operations played in facilitating the transformation of distant, seemingly disconnected portions of the landscape. Salt shortages might well have proven a limiting factor, slowing the advance of the agricultural system as food rotted and malnourishment spread to both humans and stock. Yet, instead, manufactories like that disparaged above supplied the basic need and the price of the commodity fell toward that seen in eastern cities.[550]Without the sodium extracted from tiny slices of the overall landscape, the agricultural system could not have spread so rapidly across the region.

The workforce at the above site passed without comment, but in many locations salt manufacturing in early Kentucky relied on slave labor. For example, Alfred Grayson

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[548] See examples in chapter three.
[549] Victor Collot, *A Journey in North America, Containing A Survey of the Countries Watered by the Mississippi, Ohio, Missouri and Other Affluing Rivers* (Paris: Arthus Bertrand, 1826), 100.
[550] Hazel Dicken Garcia, "'A Great Deal of Money…': Notes on Kentucky Costs, 1786-1792" *Register of the Kentucky Historical Society* (Summer 1979), 200.

advertised his desire "to hire fifteen likely healthy NERGO MEN" to work at his salt works from March through the end of the year, promising "to clothe them well and pay high wages to their owners."[551] Slave labor also fueled the salt petre industry, which produced an important ingredient in gunpowder.[552] In 1804, Brown, Hart & Co. sought "15 of 20 NEGRO MEN" to labor in their Madison County works, "for each of whom they will give 80 dollars" to their enslaver and "to each negro 20 dollars at the end of the year," though they added the important caveat "provided he conducts himself with propriety" lest one forget the true nature of the relationship. This reflected a common pattern in the agroecology of the period: much of the supporting proto-industrial labor necessary to support the whole system was delegated to those denied the opportunity to fully participate in it.

Other sectors that depended on an enslaved work force, such as metallurgy, contributed to the agroecological project in more obvious, material ways. Geography and the difficulty of transporting metal goods from eastern states inflated their costs in early Kentucky. Entrepreneurial white men appraised the situation, including their cultural assumption that society *needed* metal, and saw opportunity. Unsurprisingly, John Breckinridge and his peers invested in one such enterprise: the Bourbon Iron

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[551] *Kentucky Gazette*, April 11, 1809.

[552] The importance of gunpowder as part of an associated suite of technologies that facilitated a range of changes in the landscape, from the outcome of the clash for possession of the region to the virtual elimination of some species of large game animals, is implied in sections on hunting and frontier war, yet it warrants direct mention. The military and hunting technology played key roles in establishing and maintaining the agroecosystem; without an adequate supply the settlement of Kentucky would have proceeded very differently.

Works. Located outside of Mt. Sterling to take advantage of ore deposits in the foothills of the mountains to the east, the foundry sought to provide metal to the Bluegrass. The operation produced some quality ironware, but consistently struggled to attract skilled white workers even when offering wages the shareholders considered outrageously high. As a result, the operators turned increasingly to enslaved labor, the majority of which they leased from local slaveholders.[553] Other firms, like that of Joseph Bruen in Lexington, and the Kentucky Iron Works that opened in 1800, sought the same market and developed a symbiotic relationship with regional farmers; local manufacturers supplied the raw material for the required metal items for farmers to implement their agricultural vision, from nails and hammers to plow points and saws, and some of the proceeds of the farmers' success returned to the proto-industrialists.[554]

While some proto-industries of the Bluegrass sought to supply the material needs of regional farmers, others looked to the local agricultural system for supplies. The hemp industry is an important example in which regional manufacturers utilized technological implements to process the raw material produced by the agriculturalists into a finished product destined for distant markets. It also helps illustrate the important linkages between relatively small urban or industrial spaces and increasingly broad swaths of the rural ecology. Hemp occupied a uniquely prominent place in the agriculture of Bluegrass Region, and warrants extended discussion.

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[553] Lowell H. Harrison, *John Breckinridge: Jeffersonian Republican* (Louisville: Filson Club Publications, 1969), 128-130.

[554] Examples of iron foundries in Lexington, J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Louisville: Standard Press, 1935), 30.

Hemp: Slavery, Agriculture and Industry

Hemp arrived in Central Kentucky with the first white settlers in the 1770s and pioneers extolled the fertile landscape's potential to produce the crop, calling it "the best Country for…hemp…in the United States."[555] As more settlers arrived and the countryside took on an increasingly settled appearance with fields and woodland pastures gradually replacing the native flora, Kentucky's hemp settled into a seasonal cycle. Farmers plowed fields intended for hemp during the late winter and early spring before "the seeds [were] sown broadcast" during the month of May at a rate of approximately one and a half bushels per acre.[556] A hearty species, hemp needed only minimal maintenance during the growing season as "the plants [were] sufficiently high to shade the ground" and prevented weeds from taking root after just "a few weeks."[557] The subsequent months saw a veritable explosion of dense growth that regularly reached ten feet in height by the time of harvest in August.[558]

Once the crop ripened, laborers, almost exclusively enslaved Kentuckians, returned to the fields to take over from biology. Depending on the farmer's preference, the stands of hemp could be harvested via two different methods; the first,

> by pulling [the plants] up by the roots, an easy operation with an able bodied man; and the other by cutting them about two inches (the nearer the better)

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[555] On the first crop planted in 1775 see Willard Rouse Jillson, *Kentucky Hemp: A History of the Industry in a Commonwealth of the Upper South, 1775-1942* (Versailles: n/a, 1942), 3; quote from Edward Harris to Thomas Christie, April 11, 1797, *Filson Club History Quarterly*, II (1928), 165.
[556] Henry Clay, "Hemp," *Western Agriculturalist and Practical Farmers Guide* (Cincinnati, 1830), 228-229. More might be used on particularly fertile plots.
[557] Ibid.
[558] James F. Hopkins, *A History of the Hemp Industry in Kentucky* (Lexington: University Press of Kentucky, 1951), 47.

> above the surface of the ground…When pulled[,] it is done with the hand, which is better for the protection of an old leather glove. The laborer catches twenty or thirty plants together, with both hands, and, by a sudden jerk, draws them up, without much difficulty. The operation of cutting is performed with a knife, often made out of an old scythe, resembling a sickle, though not quite so long, but broader. This knife is applied much in the same way as the sickle, except that the laborer stoops more.[559]

It bears emphasizing that these descriptions of the hemp harvest as an "easy operation" came from Henry Clay, himself a slaveholding hemp producer. Clay might have had some passing experience with cutting a few stalks, but none with cutting plants while "stooped" to reach as near the ground as possible for hot summer hours, days and weeks. The black men whose hands wielded the modified scythes, cutting thousands of individual hemp plants across the ten acres they were each expected to harvest every season, likely would have described things differently.[560] Clay's views and role in the agroecosystem as a whole will be discussed further below.

Samuel Chew, a Lexington contributor to the *Farmers' Register* wrote more revealingly a few years later when he noted that the tasks associated with the hemp crop were "very dirty, and so laborious that scarcely any white man will work at it; of course it is entirely done by slave labor."[561] After cutting or pulling the plants and

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[559] Clay, 229-230.

[560] The ten-acre per person expectation comes from Clay, Ibid. Others offered slightly different figures, as some estimated that three experienced enslaved hemp laborers could cultivate fifty-one acres that should ultimately yield more than 35,000 pounds of fiber. *Kentucky Farmer* (Frankfort) March 1859, quoted in J. Winston Coleman, Jr., "John W. Coleman: Early Kentucky Hemp Manufacturer" *The Filson Club History Quarterly* Vol. 25, No. 1 (1950), 35.

[561] "Profit of a Hemp Crop Compared with Silk Culture" *Farmers' Register, A Monthly Publication Devoted to the Improvement of the Practice, and Support of the Interests of Agriculture* Vol. III (Petersburg, VA: Edmund Ruffin, 1836), 612.

spreading them "to cure" for "two or three days," slaves tied the hemp "in small hand bundles," knocked "the leaves…off with a rough paddle or hooked stick" and stacked the bundles in larger "shocks."[562] The shocks protected the hemp from the elements in some measure, but also allowed some degree of decay to begin. Managing decay was key to the next step in the process: rotting or "retting" the hemp. Rotting was necessary to begin to break down the resin binding the valuable fibers to the "worthless" woody portions of the stalk.[563]

As with harvest, two methods existed for the process and each had its proponents. Most Kentucky hemp farmers employed the "dew-rotting" approach in which the stalks of the plants were spread across the same field they had grown in for approximately eight weeks from October to December. Detractors of this method argued that hemp "so prepared is not so good for many purposes, and especially for the rigging of ships, as when the plants have been rotted by immersion in water, or, as it is generally termed, water-rotted" and that it would only be after the majority of Bluegrass farmers adopted that "improved" approach that the regional hemp industry would reach its full potential.[564] Water-rotting might occur "in stagnated or standing water, such as ponds, pools, or broad deep ditches" or "in running water as in a brook or river," but over the course of the nineteenth century agricultural improvers increasingly called for the construction of "artificial ponds" in order to take greater

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[562] Clay, 230-231.
[563] Jillson, 4-5.
[564] Clay, 231. This argument was not without merit, Kentucky dew-rotted hemp frequently suffered in the comparison with European and specifically Russian water-rotted varieties in U.S. markets.

control over the process.[565] Bluegrass farmers' continued resistance to this "improved" method of processing their crop represents a decision based on their appraisal of the opportunity cost of switching from the less-labor intensive dew-rotting approach.[566] Their collective decision *not* to invest in the infrastructure needed for water-rotting ultimately contributed to the sustainability of the agricultural system because the dew-rotting technique left the vast majority of organic material in the same location, leaching minerals back into the soil while rotting in the field, whereas water-rotting removed a much greater portion of the mineral wealth borrowed from the soil.[567] Overall, the decisions of Bluegrass farmers about which approach to take influenced the composition of their slice of the agricultural system, and their general preference for the less sophisticated technique held the beneficial consequence of maintaining a greater degree of soil fertility over a longer time than would have been possible had water-rotting come to predominate.

The association between slave labor and the hemp crop, along with a tendency to view slavery as antithetical to industry, can obscure the significance of locally

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[565] Edward Antil, "Observations on the Raising and Dressing of Hemp," *Transactions of the American Philosophical Society* Vol. I (Philadelphia: R. Aitken & Son, 1789), 269; John Wilson, "On Retting Hemp," *The New Genesee Farmer and Gardner's Journal* (Rochester, N.Y.: M.B. Bateham, 1842) 107.

[566] Clay seems to have represented an exception to this rule and to have invested in the type of improvements for Ashland that he advocated for in his writing as he reported in 1842 that he was "making an enormous Canal a quarter mile long three feet wide at the bottom, six at the top, and 2 ½ deep, to drain some low ground, and enable me to construct Vats to water rot Hemp" with the intention of "rig[ging] the Navy with Cordage made of American Hemp—Kentucky hemp—Ashland Hemp." Henry Clay to Clayton, August 8, 1842, *The Papers of Henry Clay* Vol. 9, "The Whig Leader, January 1, 1837- December 31, 1843," (Lexington: University Press of Kentucky, 1988): 753-754.

[567] Hopkins, 22.

produced implements such as the hemp brakes erected in fields across the state every winter. In the hands of enslaved laborers, these simple mechanisms picked up where the work of dew and frost left off and separated the fiber, which constituted only one-sixth the mass of the stalk, from the woody bulk of the plant. Henry Clay wrote that the "brake in general use…has been always employed here" and was "so well known as to render a particular description of it, perhaps, unnecessary." It remained ubiquitous until the crop's ultimate decline in the twentieth century. The typical brake was

> "a rough contrivance, set upon four legs about two and a half feet high… [it] consist[ed] of two jaws with slits in each, the lower jaw fixed and immovable, and the upper one moveable, so that it may be lifted…The lower jaw ha[d] three slats or teeth made of tough white oak, and the upper two, arranged horizontally…in such a manner that the slats of the upper jaw play between those of the lower." "The laborer [virtually always a male slave, stood] "by the side of the brake, and grasping in his left hand as many of the stalks as he can conveniently hold, with his right hand he seizes the handle in the head of the upper jaw, which he lifts, and throwing the handful of stalks between the jaws, repeatedly strikes them by lifting and throwing down the upper jaw."[568]

This action separated the fiber from the stalk, which broke into pieces and fell to the ground where decomposition returned most of the organic material back to the soil. The breaker then used a stake or wooden paddle to remove any lingering bits of woody material, set the newly "cleaned" fiber aside and repeated the process with a fresh bundle of hemp. The amount of hemp broken by each laborer depended upon the expectations of the farmer and the skill of the individual; something like seventy-five or eighty pounds of cleaned hemp seems to have been a typical requirement, with some

[568] Clay, 233.

slaveholders offering minimal per-pound bonuses for exceeding the daily quota.[569] In some exceptional circumstances, skilled individuals broke and cleaned up to 250 pounds in a single day, taking full advantage of the rare chance to receive any financial compensation for their labor.[570] Regimented and repetitious, dependent on specialized tools, and strictly measured against specific metrics, hemp breaking transformed an agricultural product into an industrial input.

Entrepreneurial Kentuckians long attempted to devise a mechanical implement to improve upon the basic handbrake design described by Clay, with limited success. Early in the nineteenth century, for example, George Mansell announced that he "had invented a machine for breaking, milling or cleaning hemp or flax…Guaranteed to break and clean 1,000 pounds of hemp per day."[571] He elaborated that his machine "worked by hand, horse, water or steam," and he announced that he was pursuing "a patent for the same," warning "all persons from making use of said invention" under penalty of law.[572] Yet, this seemingly wondrous innovation, if one took the word of its inventor, had no lasting impact on the regional hemp industry and quickly disappeared from the scene. Three decades later, Clay could hardly be blamed for striking a skeptical tone about the latest "machine…for breaking and dressing hemp and flax" due to "the

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[569] Clay suggested eighty pounds per day, 234; Chew suggested seventy-five, 612. Interestingly, John Wilson of Springfield Massachusetts wrote that fifty pounds was considered an average day's work breaking and cleaning hemp, suggesting that slaveholders expected greater per-day productivity from their chattel than northern employers could extract from their laborers. *The New Genesee Farmer*, 1842, 58.
[570] Henry Clay letter, *The New Genesee Farmer*, 1842, 59.
[571] *Kentucky Gazette*, July 30, 1802.
[572] Ibid., August 6, 1802.

number of failures which I have witnessed…in the attempts to supersede manual labor by the substitution of that of machines."[573]

The latest contender to supplant the hand brake that drew Clay's commentary, the Barnum Hemp and Flax Breaker, aimed "to break and dress hemp…in one operation" via "the rotary motion of fluted rollers." The inventor claimed the machinery would "break two thousand pounds of stalk per day" using the power of three horses.[574] He further touted its compact dimensions claiming it could "be easily transported in a wagon," which made "it very convenient for farmers to remove the machine from one farm to another without the trouble of transporting the hemp." Barnum offered copies of the machine for $300, with a purchaser option to add on a "right for a sufficient territory to support a machine," or a guarantee that none of the neighbors would be able to buy a copy, for an additional fifty.[575] Yet, Barnum's machine had as little lasting impact as Mansell's before it and by 1842, Clay noted glumly that "All attempts to substitute horse, water or steam power to the hand brake, and there have been many, have hitherto failed."[576]

But this focus on "failure" obscured the continued success and value of the traditional implements and the men who fabricated and used them. Far from relics of a

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[573] Clay, 235.
[574] "Hemp and Flax Breaker," *Western Agriculturalist*, (Cincinnati, 1830), 345.
[575] Ibid.
[576] Clay, *The New Genesee Farmer*, 59. Clay's appraisal also included the recent inventions by Sands Olcott of Newport, Kentucky, who claimed a complete mechanical system for break, cleaning and preparing hemp for market at a rate of "about 2 tons of hemp per day." Sands Olcott, "Hemp," *Western Farmer & Gardener* (Cincinnati, 1841), 165; Sands Olcott, "On the Preparation of Hemp," *Western Farmer and Gardener* (Cincinnati, 1841), 131-133.

by-gone agricultural era, only present due to Bluegrass farmers' stubborn refusal to adopt "improved" techniques, the traditional hemp brakes functioned as engines powering part of Kentucky's most profitable and modern industry, facilitating connections between the region and the dynamic currents of the Atlantic World as the Kentucky bagging and rope secured Southern cotton for transport to national and international markets. Hand brakes' significance as engines of physical change can be obscured by their relatively simple design, a contrast thrown into ever-greater relief by the rapid advance of mechanization and industrialization in other aspects of the antebellum economy. That the same enslaved men who used the brakes often constructed them, from local materials, according to the traditional designs that they had learned through experience, further compounded the dismissive view of the simple machines taken by contemporary observers, whose comments shaped the interpretations of subsequent scholarship. Yet, re-framing the traditional implements of hemp culture in an agroecological context reveals the key roles played by the relatively modest machines. Without the preparatory processing that occurred on handbrakes in fields across the Bluegrass, the complex finishing work of the more recognizably industrial portions of the system would not have been possible.

Thoroughly processed, with most of the physical materials that constituted the plant at the time of harvest remaining behind on the farm, the broken and cleaned fiber often traveled next to one of the hemp "manufactories" located in Lexington or dotting the outskirts of other regional towns. John Hamilton placed the first notice in the *Gazette* announcing his "rope walk…about two miles from Lexington where he carrieson

[sic] the rope making business" in 1790 and a half century later, the state held 111 ropewalks alone, a figure that did not include the bagging, duck cloth, and linen factories omitted from the census returns.[577] The manufactories functioned as engines transforming the hemp fiber into finished goods, and the market they created incentivized local farmers to grow the crop. In this way, the existence of industrial operations in the new urban centers of the Bluegrass acted as drivers of agroecological change across the landscape, helping to establish the patterns that characterized the region at least until emancipation shook the system.

In the fabrication step, too, entrepreneurial Kentuckians sought to leverage their mechanical ingenuity to reduce the labor necessary to transform the clean hemp into finished hempen goods. Men like Nathaniel Foster designed and patented devices to create items of value in the specific cultural context out of the raw material; Foster, for example, invented a hemp-spinning machine that resembled an oversized "women's spinning wheel" and aimed to produce hempen fabric on a greater scale than was possible using the traditional techniques.[578] Other Kentucky tinkerers also turned their attention to perceived inefficiencies in hemp processing and devised mechanical solutions, which led to Kentuckians taking out no fewer than twenty-three federal utility patents on hemp machinery between 1837 and 1860.[579]

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[577] "John Hamilton, Rope Maker," *Kentucky Gazette,* July 19, 1790; Hopkins, 132. Hopkins noted further that twenty-one of the ropewalks were located in Fayette County, the most in the state, and nine fell within the city limits of Lexington.
[578] "Patent right issued to Nathaniel Foster," June 28, 1809, in *First American West: The Ohio River Valley, 1750-1820*, the Library of Congress Online.
[579] "Utility Patents 1-65000," 1836-1867, Patent and Trademark Resource Center Association online, http://ptrca.org/history. Interestingly, by the late 1850s, some

Cordage, bale rope, and rough bagging manufacturers consumed "the most part" of Kentucky hemp during this period and warrant extended attention.[580] Rope fabrication occurred in long buildings or temporary set-ups aptly named "ropewalks," that relied entirely on hand labor for the first decades of statehood, though new machinery had begun to make in-roads among some manufacturers as early as the 1830s.[581] Even the traditional "process of rope making by hand" required sophisticated tools and the dexterous labor of multiple people working in unison. Individually, the urban Bluegrass ropewalks of firms like that of Fisher & Sutton, housed the simple "mechanical complications" such as the "hook of a whirl," "a wheel" and "a reel," which, when powered by the labor of enslaved Kentuckians, converted bundles of fiber into rope.

But taken along with the other hemp industries, they also acted as engines in the broader sense of serving as the "means used to bring to pass" the entrenchment of hemp culture in the region.[582] In this sense, proto-industrial engines drove the development of one of the distinguishing characteristics of the rural Bluegrass agricultural system. Of course, a similar point might be made in the opposite direction; namely, that the suitability of the landscape for hemp production and the decision of

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Kentuckians had begun to show an interest in replacing the hempen materials that bound southern cotton into bails with metallic implements for holding the southern fiber together as three separate patents were issued for a variation of a "Bale Tie Cotton Iron" between 1857 and 1860.

[580] Hopkins, 104.

[581] These buildings often stretched over entire city blocks, reaching lengths from approximately 600 feet to over one thousand. Hopkins, 132, 134.

[582] Thomas Sheridan, *A Complete Dictionary of the English Language…Third Edition, in Two Volumes* (London: Charles Dilly, 1790).

rural residents to cultivate it created the surpluses that tempted the industrial entrepreneurs to launch their operations in the first place. This illustrates the two-way connections between the industrial and agricultural spaces of the evolving agroecosystem. The various hemp machines of the Bluegrass ultimately served as engines affecting landscape change across the region.

Slavery represented another linkage connecting the industrial with the agricultural. Early hemp manufacturers like Elijah Craig relied on the labor of enslaved Kentuckians before the turn on the nineteenth century, establishing a pattern that survived until the Civil War destroyed the institution.[583] Rather than purchase their chattel outright, the manufacturers often rented "surplus" slaves from the surrounding countryside, as we saw in the notice taken out by Fisher and Sutton at the outset of this paper. The system of slave hiring allowed entrepreneurs the benefits of forced labor without the high initial investment. At different stages in their lives, or conceivably even in a single year, black Kentuckians might find themselves engaged in any step of the hemp culture from plowing to prepare the land for seed, to breaking the stalks in the field or twisting the fiber into cordage. At each stage in the process, hemp laborers operated machinery, whether simple or complex. The symbiotic relationship between industrial and agricultural slavery in the Bluegrass, and even the tension between the two highlighted by tasks like braking hemp by hand using a simple machine of local manufacture to prepare the plant for further processing into a finished item intended for national markets, complicates popular understandings of the institution. Hemp

[583] Hopkins, 115.

culture fostered both the industrial and agricultural development of the region in such a way as to fertilize a distinct brand of slave-based agroecosystem that befitted a border state in tapping into currents shaping the economies of both the industrious states north of the Ohio and the cotton-producing region opened up by the Louisiana Purchase. The mechanical implements of hemp culture in the Bluegrass helped establish many of the characteristics that distinguished the regional agricultural system by facilitating a diverse range of connections: between the countryside and local urban centers, between agricultural and industrial spaces in the landscape, and between Central Kentucky and the broader Atlantic World.

As with hemp, geography influenced each of these industrial and commercial endeavors, as we have seen, but equally important was the transportation technology people brought to bear on the distances. In the first decades of statehood, both the transportation infrastructure and technology remained rudimentary, though local-scale improvements began to take shape.

Henry Clay and the Bluegrass Landscape

Henry Clay rose to national political prominence from this agroecological background and much of his political program drew on his experiences with the local system, particularly the symbiotic relationship between agriculture, industry and commerce. Some background on Clay, particularly as a planter and industrial investor helps explain his political views. Framed slightly differently, viewing Clay through the lens of his roles in the Bluegrass agroecosystem clarifies his actions as a national politician. Like fellow George Wythe protégé John Breckinridge before him, attorney

Clay migrated from Virginia and built his career litigating the myriad land cases that persisted through the first decades of statehood.[584] Clay's new practice flourished in this "El Dorado for lawyers" and he profited from connections to the region's leading legal minds including Breckinridge, James Brown and George Nicholas; referrals from their overwhelmed practices proved a boon.[585] His 1799 marriage to Lucretia Hart, the daughter of prominent Lexingtonian Colonel Thomas Hart, further eased Clay's entry into the elite of fledgling Bluegrass society.[586] He also followed the familiar pattern by establishing his own agricultural project on a large farm approximately a mile and a half southeast of Lexington. Clay named the plantation Ashland after the stately old growth forest it replaced.

Of course, this simple declarative sentence masks a much more complicated reality, telescoping decades of methodical, piecemeal changes into a single event. In fact, Clay and many other planters, took great care to protect or conserve some aspects

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[584] According to one pre-statehood visitor, Kentuckians did not "know how to buy a piece of land without involving themselves in a lawsuit, often ruinous, always long and wearing." Otto, Chargé d'Affaires (New York) to Monseigneur [?], March 11, 1786, Otto Letter (KHS). On Clay's shared connection to Virginia jurist George Wythe see Heidler, David S.; Heidler, Jeanne T., *Henry Clay: The Essential American* (Random House Publishing Group: Kindle Edition, 2010) Kindle Location 928. On Clay's clerking with Wythe see Kindle Location 706-786.

[585] Bernard Mayo, *Henry Clay: Spokesman of the New West* (Washington D.C.: Archon Books, 1966 reprint of 1937 edition), 108-109. For example, when Breckinridge left for the United States Senate in 1801, he left a large portion of his practice in Clay's twenty-four year old hands. See Heidler and Heidler, Kindle Locations 1170-1172.

[586] Heidler, Kindle Location 1124-1167. Thomas Hart had been an early investor in the ill-fated Transylvania Company, but did not move to Kentucky until 1794 after which his mercantile operations expanded rapidly and he re-invested some of his profits into proto-industrial ventures tied to the local agricultural system including a ropewalk and nail factory. Heidler and Heidler, Kindle Location 1109.

of the initial landscape; the grove of Ash trees that Clay celebrated, for example, survived but as part of the domesticated, park-like environment immediately adjacent to the main house. This and similar pastures, dominated by ancient trees and grazed by expensive, pedigreed livestock, formed only one aspect of the broader landscape mosaic of the plantation. Change was constant, but not chaotic. The messy reality of everyday interactions with the land undertaken on Clay's behalf by workers, both enslaved and paid, gradually shaped Ashland along the lines of his agroecological vision.

In the first decade of the Clay's tenure at Ashland, however, his vision took shape in outline form, without many of the refined details it would acquire in later years. Clay initially rented the 255-acre core of the farm from the heirs of George Nicholas, absentee owners who resided in Virginia, before finalizing the purchase in 1811. He subsequently added small adjoining parcels until it reached 600 acres in total.[587] Like many of his Bluegrass peers, Clay applied a relatively diverse set of agricultural practices to cultivate a range of crops from grain to hemp to garden vegetables and livestock consumed much of his focus. Domesticated species such as chickens, hogs, cattle and horses soon resided at Ashland under various levels of care and direction at the hands of agricultural laborers, both enslaved and free. These hands, in turn, were under the nominal direction of Henry Clay and the culturally-endorsed transitive property implied by private ownership of land and labor rendered their work, his and their plantation into Clay's Ashland.

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[587] Bernard Mayo, *Henry Clay: Spokesman of the New West* (Washington D.C.: Archon Books, 1966 reprint of 1937 edition), 194.

The Census provides a window on the Bluegrass landscape and a snapshot of the budding connections between agriculture and industry.[588] The state's population had expanded almost six-fold since 1790, bringing the total over 400,000 individuals. A fifth lived in the six Inner Bluegrass counties that form the core of this study, where settlement had begun earliest and landscape "improvement" advanced the furthest.[589] The manufacturing returns demonstrate some of the results of this development. In many industries, the region punched above its weight, whether measured in population or landmass. The Inner Bluegrass accounted for over 28 percent of the state's whiskey production, for example, even though Kentuckians throughout the state distilled their corn. In fields that required relatively specialized rather than ubiquitous equipment, the region often dominated. Four of the six paper mills in the state were located in the Inner Bluegrass and they produced the vast majority of this vital supply that facilitated communication.[590] Much of the raw material came from the local landscape and some of the trees chopped down to clear fields fueled the papermaking process. While only two of the state's eleven nail manufactories were located in the Bluegrass, they

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[588] Tench Coxe, *A Statement of the Arts and Manufactures of the United States of America for the Year 1810*. (Philadelphia: Cornman, 1814).

[589] U.S. Census Bureau, *Population of States and Counties of the United States: 1790-1990* Part II. http://www.census.gov/population/www/censusdata/pop1790-1990.html (accessed March 12, 2016). It is useful to compare these statistics against the fact that the six counties comprise only 3.72 percent of the state's landmass, with an area of 1,439 square miles of Kentucky's 39,486 total. Elbon, David C. "Kentucky Counties," *Kentucky Atlas & Gazetteer* http://www.kyatlas.com/kentucky-counties.html (accessed March 12, 2016).

[590] The idiosyncratic nature of the 1810 Census gave enumerators a great deal of leeway and those outside the study area, failed to report the number of reams produced at the mills they reported, but the mill in Fayette County produced 700 reams and the three mills in Scott combined to produce 5,500 reams.

combined to account for fifty of the eighty-eight tons of nails produced. These metal shards functioned as essential bindings in the built environment Kentuckians were constructing for themselves, their crops and their livestock.

The census of manufacturing also reveals the importance of hemp in driving the development of regional agriculture and industry. Entrepreneurs had established seven of the state's thirteen hemp bagging manufactories in the Inner Bluegrass, with Fayette home to five. These manufactories' production accounted for almost three-quarters of that produced in the state, with an estimated value of nearly $120,000 annually and the operations themselves (machinery, buildings, etc.) were appraised at over $330,000.[591] Not just bagging, but hemp rope manufacturing also flourished in the region. The Inner Bluegrass was home to eighteen of the thirty-eight ropewalks in Kentucky and again Fayette led the way with thirteen. The Inner Bluegrass ropewalks produced nearly seventy percent of the approximately 2,000 tons of hemp rope manufactured in the state and their share of its appraised value amounted to over $270,000. Taken together, the proto-industrial hemp manufactories of the Bluegrass transformed local hemp into approximately $400,000 worth of finished goods in 1810.[592] This activity was centered on Lexington and the surrounding countryside, but also somewhat diffused as each Inner Bluegrass county, except Jessamine, boasted at least one hemp processing operation.

The War of 1812 and the Bluegrass Agroecosystem

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[591] Coxe, *A Statement of the Arts and Manufactures of the United States of America for the Year 1810*.
[592] Ibid.

Given Kentuckians' long struggle to secure access to trade on the Mississippi River and the widely-held perception that their agriculture could only thrive with unfettered access to markets, the bellicose response of political leaders like Henry Clay to the crises precipitating the War of 1812 make a great deal of sense. In early 1812, Clay spoke on the floor of the House of Representatives in support of naval expansion in response to calls "to put the nation in armor" after British offenses against American shipping.[593] He called particularly for protection at the port of New Orleans, the "solitary vent" upon which "about one-fifth of the whole population of the United States, [rest] all their commercial hopes."[594] Central Kentuckians did not view themselves as landlocked westerners, destined for isolation from the currents of Atlantic trade, but they did recognize the tenuousness of their all-important connections to that system and many were therefore determined to defend against any perceived threats to those linkages.

The contributions of the famed Kentucky volunteers during the war, whose reputation for valor led to the nickname "alligator horses," served to protect vital aspects of the agroecosystem, though the conflict itself spurred unforeseen environmental consequences in both the short and long term.[595] During the war years, British blockades and the difficulty of international trade created a virtual protected

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[593] *Annals of Congress* House of Representatives, 12th Congress, 1st Session, 909.
[594] Henry Clay, "Naval Establishment" *Annals of Congress* House of Representatives, 12th Congress, 1st Session, 916.
[595] "Hunters of Kentucky, or Half Horse and Half Alligator" song sheet, (Boston: William Rutler printing, n.d.) from "America Singing: Nineteenth-Century Song Sheets" collection on the Library of Congress online.

home market for domestic manufacturers. Coupled with the continuing high cost of importing items to Kentucky, this disruption provided an opportunity for a boom in local industry. Saltpeter operations in the eastern portion of the state, for example, expanded rapidly in order to supply the raw materials needed to keep American troops stocked with gunpowder. Mills in the Bluegrass often processed those materials into the finished products sold to governmental procurers.

To residents of the Bluegrass, the American victory at the battle of New Orleans coupled with the Treaty of Ghent seemed to secure the future of their agroecosystem. Toasts to the victorious American forces invariably predicted the inauguration of an era of unprecedented economic and agricultural success. Yet the years after 1815 saw a precipitous economic downturn in the region, rather than the expansion many had anticipated. The contraction affected virtually every aspect of the agroecosystem, with perhaps the most dramatic effects on commerce and industry. Lexington, in particular, suffered a relative decline in prominence linked to changing commercial patterns and the rise of the steamboat, an innovation discussed below. By 1820, the local industrial boom likely felt like a distant memory as many manufacturing operations had closed, with others operating at reduced capacity.[596] Jon Nichols reported on the devastation for regional hemp manufacturers, bemoaning the fact that "Nichols & Co. closed their Business with nearly the whole amt of their Capital in Spun Yarns & Cordage…distributed from the Mississippi to Boston," hoping that "on a final close we have not Sunk money," while keeping " a few hands employ'd making some Tared

[596] Hopkins, 87.

cordage and small cordage to supply in part the demand in this and the adjacent county."[597]

Given the symbiotic relationship between Bluegrass agriculture, industry, and commerce, the depression that caused manufactories and merchants to shutter their operations also touched the fields and pastures of regional farmers. As the years of economic sluggishness drug on, many found it increasingly difficult to meet the financial obligations they had entered into during rosier periods. The debt taken on in order to fulfill the role of landowner directing their own slice of the landscape, threatened to undermine some white men's status as director in the agricultural system.[598] The loss of land could reduce a man to a laborer within the agroecosystem, acting under the direction of another. This prospect caused considerable consternation in part because it entailed sliding down the agroecological hierarchy. Some indebted white men flatly rejected the possibility. They viewed their ownership of the land as a fundamental component of the agricultural system and broader society, so when debt payments threatened it, they responded with a political campaign to assert the primacy of indebted landowners. The ensuing political contests between proponents of debt relief legislation and their opponents came to be known as the Old Court-New Court Controversy, though "chaos" might be a more accurate final descriptor. The conflict centered on controlling the state government in order to implement an either pro- or

[597] Jon Nichols to Walter Nichols, March 8, 1817, *Jon Nichols Correspondence,* University of Kentucky, Special Collections Library.
[598] In some ways, this conflict divided Kentuckians along similar lines as debates over land redistribution that emerged during the constitutional conventions of the 1790s.

anti-relief agenda and boiled down to a disagreement over which element of the agroecosystem mattered more: the sanctity of legal contracts (and, by extension, property) or broad white male landownership. In the first rounds of voting, the pro-relief politicians seemed to carry the day, but the new state legislature's efforts to rewrite debt re-payment laws ran into a hurdle when the state's highest judiciary refused to enforce the new law.[599]

Throughout this period, Kentuckians continued to expand their transportation infrastructure and adopt new technologies to transport people and goods more efficiently. These developments changed the context in which the agroecosystem continued to evolve. Steamboat technology and creation of turnpikes, in particular, held tremendous significance for the future of the region.[600] By reducing the time, effort and expense entailed, these transportation advances effectively "shrank" the commercial landscape and created new patterns, simultaneously strengthening Central Kentucky's connections to national and international markets while undermining some of the advantages held by local commercial and industrial ventures. While in some ways the declines in these sectors marked a departure from the agroecosystem envisioned during the first years of the nineteenth century, in other respects the shift of commerce and industry toward the Ohio River simply marked the next stage in the system's evolution.

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[599] For more on this controversy see Frank F. Mathias,
"The Relief and Court Struggle: Half-way House to Populism" *Register of the Kentucky Historical Society* 71 (1973), 154-176.

[600] Railroads, an obvious and important transportation innovation that prompted a re-configuration of the commercial landscape, emerged during the 1830s and will be discussed in detail in the chapters to come.

Andrew Jackson's veto of the bill funding the first section of a National Road, which would have linked Lexington with the Ohio River at Maysville via a modern, "improved" road, marked a decisive moment in the region's history.[601] One of Henry Clay's pet projects and a lynchpin in his system of nationwide improvements, the proposed road reflected his belief in the untapped potential of the landscape, waiting to be unleashed by more efficient connections. It also represented an attempt to turn the tide of commerce back toward Lexington and the Bluegrass Region by creating a manmade channel to compete with the rising traffic on the Ohio River.

The 1830 Census suggested a very different agroecosystem than had existed in 1792. Most striking was the expansion of the population from fewer than 74,000 in 1790 to nearly 700,000 by 1830.[602] Of these, approximately 93,500 lived in the Inner Bluegrass counties. While these six counties contained less than 14 percent of the state's population, over 22 percent of the enslaved men, women and children in the commonwealth toiled in the Inner Bluegrass. Nearly 40 percent of the population was enslaved in these counties, compared with 24 percent statewide, which gives an idea of how entrenched slavery had become in the regional agroecosystem. Many of the emergent features came to characterize Bluegrass agriculture of the antebellum period, as we shall see.

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[601] The history of this particular roadway is explored in great detail in Karl Raitz and Nancy O'Malley, *Kentucky's Frontier Highway: Historical Landscapes Along the Maysville Road* (Lexington: University Press of Kentucky, 2012).

[602] "Heads of Families at the First Census" 8, http://www2.census.gov/prod2/decennial/documents/1790g-02.pdf accessed October 12, 2016; Matthew St. Clair Clarke, *Abstract of the Returns of the Fifth Census* (Washington: Duff Green, 1832), 25-27.

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Section Three:

Antebellum Landscapes, 1830-1860: Introduction

By 1830, the Central Kentucky environment reflected a more settled appearance than many might have predicted at the dawn of the nineteenth century, thanks to the cumulative efforts of its new residents, both enslaved and free. Visitors to the region found the juxtaposition striking; for example, the Englishman Frederick Marryat traveled the country during the 1830s and reminded his readers that not long before this "vale was the favorite hunting-ground of the Indians," likely to hear only "the cry of the wild animals of the forest, or rifle of the Shawnee," but now he declared it "a beautiful and bounteous land…the most eligible in the Union."[603] Descriptions of the "highly cultivated fields adorn[ing] the whole of the wide landscape" in place of the former "heavy forest" and assertions like "not a spot remains in its pristine state of wilderness; but everywhere the hand of art [has] exerted its energies with an unusual vigor and felicity of execution" or "every foot of ground has been adorned, or rendered productive" can leave the historian with the impression that the environment had been fully subjected to human dictates.[604] Such framings suggest culture had taken the reins from nature and now directed the future direction of the landscape.

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[603] Frederick Marryat, *A Diary in America, With Remarks on its Institutions* (New York: Wm H. Colyer, 1839), 139 (first and third quote), 127 (second quote).
[604] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 64-66.

But, contemporary Kentuckians knew better. Farmers, merchants and manufacturers all continued to operate within the specific ecological and geographic context and while they applied cultural innovations to overcome environmental constraints, institutional and technological advances should not obscure the on-going interplay between Kentuckians and the natural world in which they operated. This section analyzes this interplay over three antebellum decades. Chapter eight examines the physical characteristics of the agricultural landscape, including a discussion of the influences of a changing crop mix and the physical characteristics of Bluegrass livestock. Chapter nine traces the elaboration of the regional transportation network, highlighting the ways in which capital investments in turnpikes, canals, railroads, and industry drove changes in the composition of the agroecosystem. Chapter ten explores some of the varied ways Kentuckians experienced this landscape during these years, with a focus on the black Kentuckians whose bodies, utilized for both labor and capital, underwrote its creation and maintenance. Viewed from these complementary perspectives, the agroecosystem of antebellum Central Kentucky emerges as a dynamic space of cultivation, innovation and exploitation, constantly shifting in response to myriad factors ranging from the microscopic, such as the cholera-causing bacterium *Vibrio cholerae*, to the global, like international cotton markets.[605] Furthermore, the diverse

[605] Put most simply, an "agroecosystem" is an ecosystem modified for human use and the framework is intended to emphasize the ecological processes that occur in landscapes designed and maintained by people. For a more detailed discussion, see chapter one. On cholera see "Cholera," World Health Organization, July 2015. http://www.who.int/mediacentre/factsheets/fs107/en/ (accessed September 30, 2016). Cholera's role in Central Kentucky during the period is discussed in chapter eight.

connections and exploitative labor relationships engendered by the agroecosystem during these decades help to explain the conflicted responses to the secession crisis and eventual civil war. Kentuckians responded to the upheaval in diverse ways based on the fear or hope sparked by their recognition that the war seemed poised to undercut one of the keystones of prewar Bluegrass agriculture: a flexible slave regime that blurred distinctions between agriculture and industry in pursuit of economic advantage.

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Chapter Eight: Material Landscapes of Central Kentucky, 1830-1860

Any description of an historic agricultural landscape must be grounded in the types and quantities of produce harvested; statistics may be dry, but a firm grasp on the numbers can help prevent mistaking the extraordinary, which often receive disproportionate coverage in contemporary agricultural journals and in subsequent histories, for the typical. Few small farmers had the inclination or time to write long essays about the particular qualities of their common cattle, whereas elite husbandman celebrated their imported and "blooded" stock in rapturous newspaper articles, complete with portraits.[606] Yet, the common stock was far more numerous and therefore more influential on the physical characteristics of the Bluegrass. The distinctive products of Central Kentucky's agriculture, such as thoroughbreds and hemp, warrant extended discussion, but are most illustrative when framed by the broader context of the diverse landscape.

[606] See regional agricultural journals for examples, such as the *Franklin Farmer* or the *Kentucky Farmer*, and general newspapers, such as the *Kentucky Gazette*.

Accurately describing the composition of the physical landscape for any historical era entails confronting myriad difficulties. The antebellum Bluegrass is no exception, though the obstacles are distinct from those of previous sections of the dissertation. For this era, the sources are drawn from a broader base as more published materials on the agricultural landscape exist, but things like agricultural census data can only tell one level of the story. Condensing the deeper, more diverse pool of information into a clear account of the nineteenth century landscape can be as challenging as sketching the eighteenth-century environment from the scattered sources that survive. Evidence about the agricultural system, such as that found in farming periodicals, often focused on specific slices of the whole, with little reference to broader context. Other types, like bills of lading from river shipping or railroad traffic, provide tantalizing details about the movement of agricultural commodities, while some statistical measures report their findings at such a broad scale as to offer little guidance in describing a county, much less a farm. Together the difficulties represent a bit of a paradox; historic landscape literally surrounded people, forming an inescapable part of their day-to-day lives. In the largely rural Inner Bluegrass, this meant a constantly evolving, lived relationship with the agricultural landscape. Yet, this very immersion meant many saw little need to comment extensively upon the physical characteristics of their everyday working lives. Antebellum Bluegrass farmers' tendency to maintain minimal records, especially among those whose laboring hours left little time for bookkeeping, compounds the difficulty.[607] The historian, then, pours over reams of documents in search of scraps and passing

[607] "Farm Accounts and Statistics" *Kentucky Farmer* (Frankfort) Vol. 1 No. 1, July 1858.

descriptions in family correspondence to help fill in the finer-grain details that would have been laughably obvious to contemporaries.

While inconsistencies in contemporary approaches to compiling agricultural statistics complicate attempts at straight forward comparisons from year-to-year and from decade-to-decade, careful use of government documents including tax and census returns can help to recreate the contours and trends of production. Comparisons between the Inner Bluegrass and the rest of the state and nation over time highlight the unique aspects of the system, but also demonstrate many features common across antebellum agriculture.[608]

The region's population declined by over nine thousand people, or more than ten percent of residents, over the period as many sought brighter futures further west or south especially during the "hard times" of economic distress like the late 1830s and 1840s. Yet in many respects those with an established stake in the system nonetheless wrested an increasing bounty from an increasingly sophisticated agroecosystem.[609] Figures 8.1 and 8.2 show the population trends for the region, including the ratio of free to enslaved Kentuckians in the study area.

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[608] One important number to keep in mind in the following discussion is 3.72 percent, which is the percentage of Kentucky encompassed by the six counties of the study area. This gives a general baseline against which to evaluate the relative production coaxed from the various landscapes of the state in addition to suggesting the relative density of settlement in the region throughout the nineteenth century. http://www.kyatlas.com/kentucky-counties.html (accessed October 12, 2016).

[609] Total population in the six-county study area fell from 93,495 in the 1830 census to 84,044 in the 1860 census. "Hard times" described in Thomas D. Clark, *Agrarian Kentucky* (Lexington: University Press of Kentucky, 1977), 73.

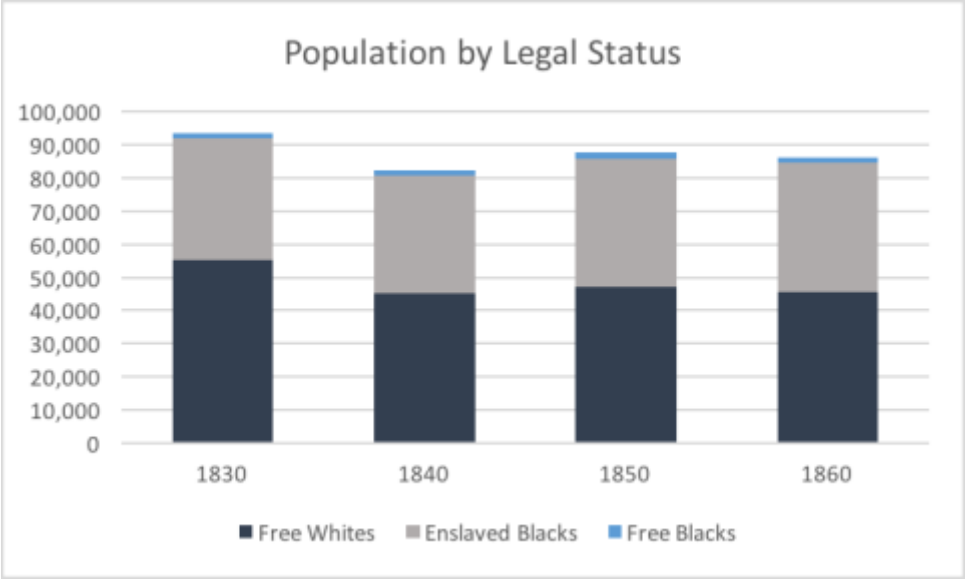

Figure 8.1 Population by Legal Status, 1830-1860

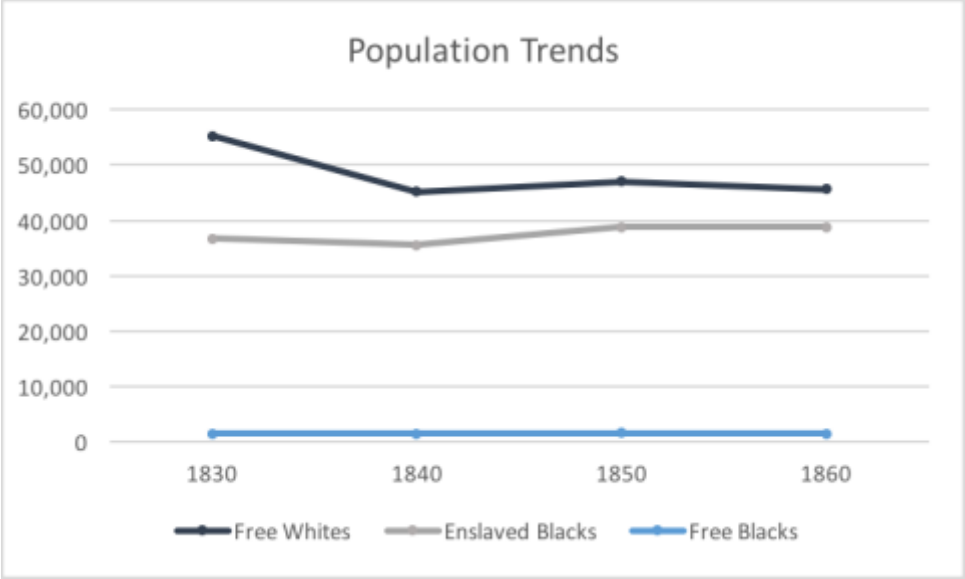

Figure 8.2 Population Trends, 1830-1860

The overall drop in population contrasts markedly with the earlier period of widespread immigration into Bluegrass and suggests the changing incentives of joining the central Kentucky agricultural economy. Whereas during the late eighteenth and early nineteenth centuries, the region offered white men relatively cheap land and comparatively abundant opportunity, by the antebellum decades those descriptors no

longer applied.[610] Instead of new arrivals hacking new fields out of forests that grew under the influence of herds of bison and elk, longtime residents and second-generation Kentuckians elaborated on the agricultural pattern laid down by their predecessors, while making studied changes to their practices to maximize their profits amidst the rapidly evolving antebellum economy.

Antebellum Crop Production

Looking at county-level census figures for crop production in the Inner Bluegrass from 1840 to 1860 suggests the diversity in the cultivated landscape. While residents hyperbolized to visitors about "the richness of the soil; saying 'if you plant a nail at night, twill come up a spike the next morning,'" the mundane reality nonetheless demonstrated the wide array of agricultural products the soil did produce.[611] Each county harvested tens of thousands of bushels of corn, wheat, rye, oats, potatoes every year, along with hundreds of thousands of pounds of hay and hemp.[612] Tightening our focus to a single Bluegrass county and a sample of individual farms can help nuance the broad contours of the system visible in the regional statistics. While differences exist between the six counties that constitute the study area, Bourbon County serves as a suitable microcosm; it is underlain by the limestone subsoil that characterizes the region and split between the Inner and Outer Bluegrass; branches of the Licking River cut

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[610] Stephen Aron, *How the West was Lost: The Transformation of Kentucky from Daniel Boone to Henry Clay* (Baltimore: Johns Hopkins, 1996).
[611] Harriet Martineau, *Society in America* Two Vols. in One. (Paris: Baudry's European Library, 1842), 145-146.
[612] Andrew Patrick, "Inner Bluegrass Agriculture: An Agroecological Perspective, 1850-1880" MA Thesis, University of Kentucky, 2012.

through the county, providing limited access to the Ohio, but residents displayed early interest in improved ground transportation; the county seat of Paris acted as a center of activity, but remained relatively small and never grew to rival Lexington, the undisputed hub of the Bluegrass agroecosystem.[613] Utilizing a ten percent sample of original agricultural census returns from Bourbon County as a case study reveals the diversity of the system at the level of the individual farm that can be obscured in county or state statistics.[614]

As we have seen, corn functioned as a keystone of the agricultural system erected by white and black Kentuckians from their earliest days of permanent settlement and it remained an essential component of virtually every farmers' crop portfolio throughout the nineteenth century including every Bourbon County farm sampled. Figure 8.1 shows the trends in corn production for these census enumerations.

[613] Woods, A.J., Omernik, J.M., Martin, W.H., Pond, G.J., Andrews, W.M., Call, S.M, Comstock, J.A., and Taylor, D.D., 2002, Ecoregions of Kentucky (color poster with map, descriptive text, summary tables, and photographs): Reston, VA., U.S. Geological Survey (map scale 1: 1,000,000).
http://www.epa.gov/wed/pages/ecoregions/ky_eco.htm#Ecoregions%20denote
Accessed March 11, 2010.

[614] This sample was originally compiled as part of my masters' thesis. See "Inner Bluegrass Agriculture: An Agroecological Perspective, 1850-1880" University of Kentucky MA thesis, 2012.

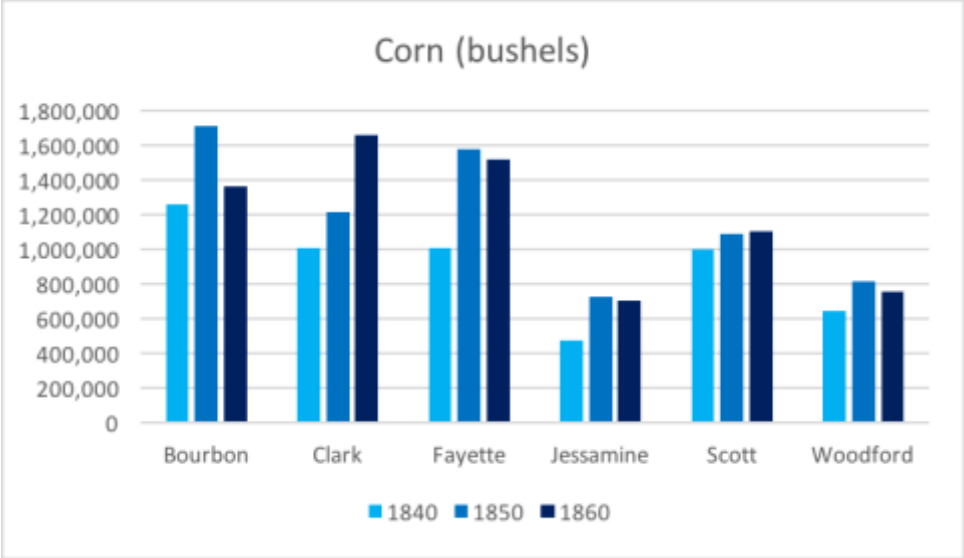

Figure 8.3 Bushels of Corn, 1840-1860.

The Inner Bluegrass expanded its production by more than 1.7 million bushels from 1840 to 1860, exceeding 7 million bushels per year by the end of the antebellum era. Considering a bushel of corn on the ear weighs approximately seventy pounds, this expansion meant these six counties produced almost 120 million *more* pounds of corn than they had twenty years prior.[615] This entailed a physical expansion of the sections of the landscape dedicated to corn cultivation, though productivity increases linked to technological developments like improved ploughs and mechanical reapers also contributed to the jump.

Central Kentuckians put this expanding supply of grain to myriad uses. Most obviously, and continuing the practice established in preceding decades, Bluegrass residents used corn directly. As a calorie source, corn knew virtually no rival. It could be

[615] For the approximate weight of a bushel of corn on the ear http://extension.missouri.edu/publications/DisplayPub.aspx?P=G4020 (accessed October 12, 2016)

eaten with minimal preparation, or, when ground into cornmeal, the versatile grain could be found in staples from cornbread to grits. It also lent itself to less direct forms of processing, as when fed to livestock. Farmers frequently used their corn crops as fodder for stock and expected a return on their investment; for example, a contributor to a regional agricultural journal emphasized the role corn could play in fattening hogs for market, advising his readers that "100 bushels of corn will produce 1500 pounds gross weight of increase of live hogs."[616] Many Kentuckians refined another processing technique: distilling. When transformed into whiskey via the alchemy of heat, yeast and fermentation, corn proved a portable and potent spirit, and the state developed a reputation for fine "bourbon" that continues today.[617] A single meal in antebellum Kentucky, then, might have included corn in any, or all, of these forms: a pork chop from a local corn-fed hog, cornbread from meal ground at a local mill, and bourbon from a neighbor's distillery. Significantly, corn also reached the market in each form, as well.

Yet Kentuckians had no desire to live on, or by, corn alone. As we saw in the section on early settlement, new arrivals brought their culinary tastes with them and quickly set about cultivating the necessary crops to approximate the diets they had left behind. Raising wheat to mill into flour for bread ranked high on the to-do list. Once established, wheat remained an important crop for both local consumption and sale outside the region. Indeed, flour took on an important role in Kentucky's exports by the

[616] "Fattening Hogs" *Kentucky Farmer* (Frankfort), Vol. 1, No. 3, September 1858, pg. 43.
[617] A distinguishing feature of "bourbon" is the requirement that the mash bill, or ingredient list, contain at least 51 percent corn, with the remainder filled out with wheat, rye and/or barley. Distilling is discussed in more detail in chapter 7.

beginning of the nineteenth century, which it maintained throughout the antebellum era.[618]

Figure 8.4 traces wheat production during the period.

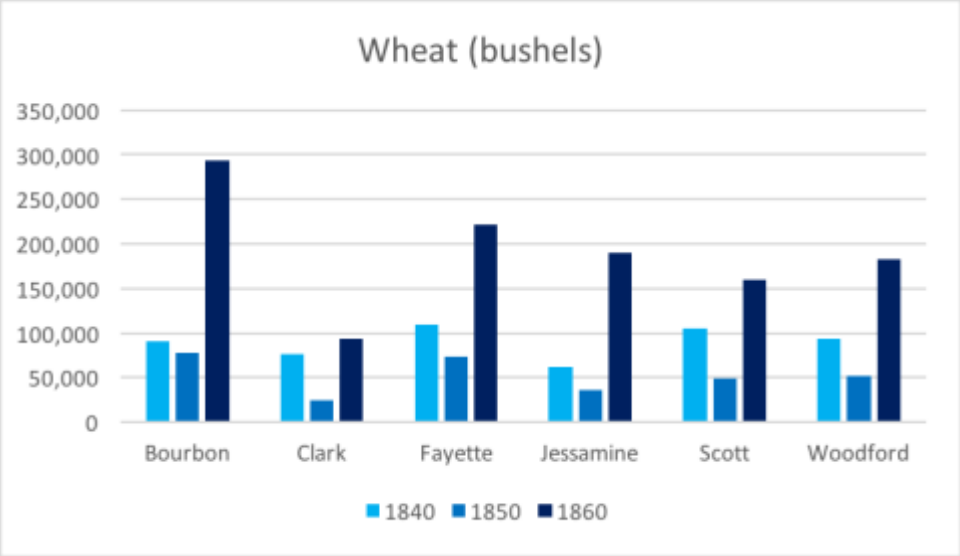

Figure 8.4 Bushels of Wheat, 1840-1860

The Inner Bluegrass mirrored the state with a dip from 1840 to 1850, followed by an expansion by 1860 to levels far above those of previous census enumerations. Wheat fields dotted the landscape; in Bourbon County, for example, 85 percent of sampled farms reported growing wheat in the 1850 Census, which grew to 94 percent in the enumeration the following decade, as seen in Figure 8.5.

[618] W.F. Axton, *Tobacco and Kentucky* (Lexington: University Press of Kentucky, 1975). Axton noted that "the value of shipments of wheat flour from the state exceeded that of tobacco" by 1798 and "the dominance of flour had become a settled fact of economic life in the Commonwealth" by 1803. Axton, 42.

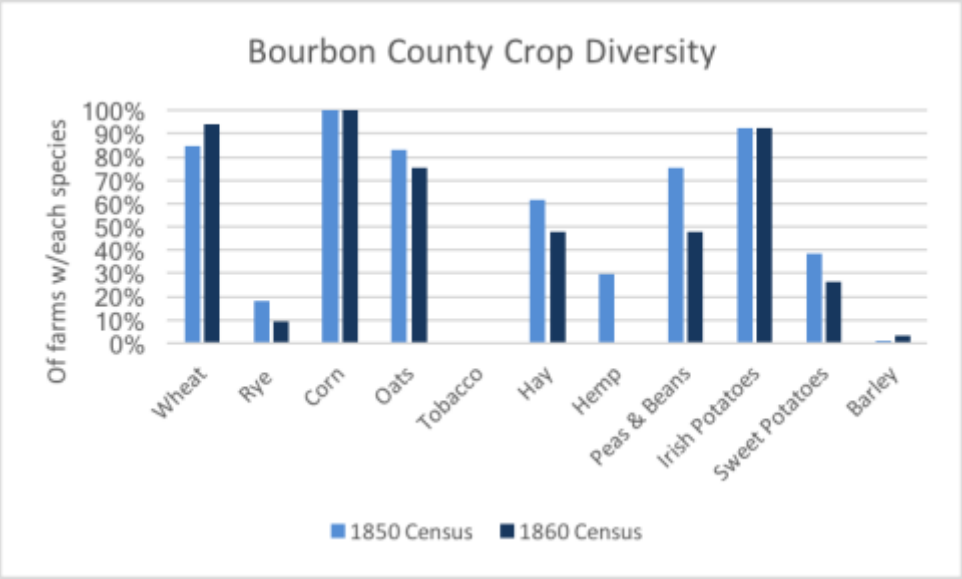

Figure 8.5 Bourbon County Crop Diversity, 1850 and 1860

In good years, fields might yield eleven or more bushels per acre, but in "indifferent" years or in seasons when "frost and rust," the term for a rust colored fungus that grew on wheat leaves, injured the plants, yields could drop below six bushels per acre.[619] By 1860, the study region produced more than a million bushels of wheat, easily doubling what it had harvested two decades before.[620]

Mills transformed much of this grain into flour, a large portion of which was exported for sale outside of the region, particularly to the cotton South.[621] As we saw in previous chapters, mills processed the raw cereal grain into a useful and marketable

[619] Eleven bushels per acre from *Kentucky Farmer*; quotes from Joseph F. Hedges to William L. Hedges, June 29, 1849, "indifferent" season calculation based on "82 bushels of wheat off about 14 acres of ground," James Hedges to William Hedges, January 23, 1844, "William L. Hedges papers, 1835-1850" SC 126, Kentucky Historical Society, Frankfort, Kentucky.
[620] See Figure 8.2.
[621] On trade to the cotton south Diane L. Lindstrom, "Southern Dependence Upon Inter-regional Grain Supplies: A Review of the Trade Flows, 1840-1860," *Agricultural History* 44 no 1 (1970): 101-113.

commodity, whether they were powered by human or animal labor, by harnessing the energy of flowing water, or by steam power at commercial mills.[622] Wheat and flour both typically found a ready market and often commanded relatively high prices; in Louisville in February 1859, for example, wheat brought between $1.05 and $1.20 per bushel compared to between 65¢ and 90¢ for corn, 65¢ to 80¢ for oats, 75 to 80¢ for rye and 60 to 75¢ for barley. Wheat flour sold for between $5.50 and $6.00 and corn meal for between 80 and 90¢.[623] Wheat's role as a cash crop, particularly by the late antebellum period can be seen in the dramatic rise in production from 1850 to 1860 and is suggested by Bluegrass farmers' calls for better, more up-to-date information on market prices across the nation and Europe, as when "A Farmer" wrote to the editor of the *Kentucky Farmer* to request the publication switch from a monthly to a weekly schedule. He stressed that frequent updates would be even more vital once a permanent transatlantic telegraph service was established, since they would allow a smart speculator to cheat Kentucky wheat farmers operating with old information.[624]

Rye and oats, listed together in the county-level 1850 census reports, nonetheless constituted distinct aspects of the Bluegrass agricultural system.

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[622] For example, the "Alluvion Steam Mill" in Lexington bought wheat for cash, ground grains for cash or for a share and sold "Extra Superfine, Fine, Common, Dyspepsia, and Rye Flour, Corn meal, Hominey, Chops, Shorts, and Bran." *Kentucky Gazette*, March 14, 1835.

[623] "Letter from Louisville," *Kentucky Farmer* Vol. 1, No. 8, 1859, pg. 113.

[624] "An Agricultural Paper in Kentucky," *Kentucky Farmer* Vol. 1, No. 2, 1858, pg. 28.

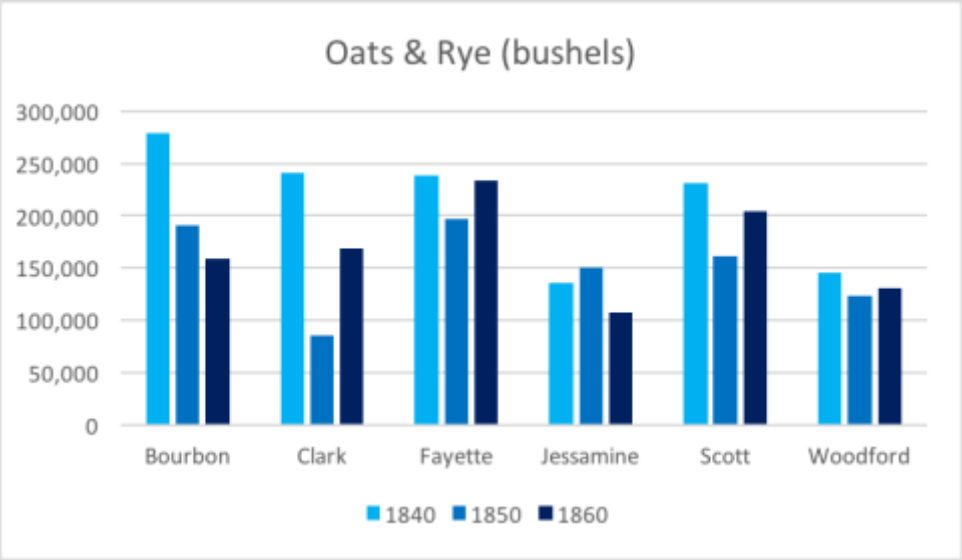

Figure 8.6 Bushels of Oats and Rye, 1840-1860

Oats played a major role in the antebellum system and served primarily as fodder for livestock, in addition to contributing to human diets. Fully 83 percent of the Bourbon County farms sampled from the 1850 Census reported growing some oats, a portion that fell to 75 percent by the following decade.[625] That large majorities cultivated oats suggests their widespread importance in a system in which virtually every farm supported livestock. Comparing production levels in 1840 to those in 1860 for the study region indicates a modest uptick in oats harvested, most of which ended as feed for Bluegrass livestock.[626]

While never produced in the same quantity as oats, rye constituted a distinguishing feature of the Bluegrass system, compared with the rest of the state in

[625] See Figure 8.3.

[626] In 1840, the region produced 741,732 bushels of oats, which expanded to 883,931 by 1860. The increase is particularly notable since overall production in the state declined by more than 35 percent during the same period. This difference reflects the greater emphasis on high-value livestock in the Bluegrass in comparison with the rest of the state.

1840. The six-county study region produced over half a million bushels of rye, or 70 percent as much as oats, compared with less than 10 percent in the state as a whole. By 1860, however, the entire study region reported less rye than that grown in Bourbon County alone, twenty years prior. The sampled individual agricultural returns support the overall trajectory for Bluegrass rye, as portion of farmers reporting cultivating the crop fell from under one in five to under one in ten from 1850 to 1860. Barley also acted as fodder and functioned as cover crops, planted to control soil erosion and prevent weeds from taking over a field after a corn, wheat, or vegetable harvest, but constituted a distinctly marginal place in the overall agricultural landscape as fewer than one in thirty in the Bourbon County sample cultivated barley.[627] By filling supporting roles, rye, oats, and barley contributed to the overall diversity of the Bluegrass agricultural system, both on individual farms and in comparison with other regions.

Potatoes comprised an important piece of both the patchwork landscape and local diet, as seen in Figure 8.7.

[627] Clotfelter, 97; see Figure 8.5.

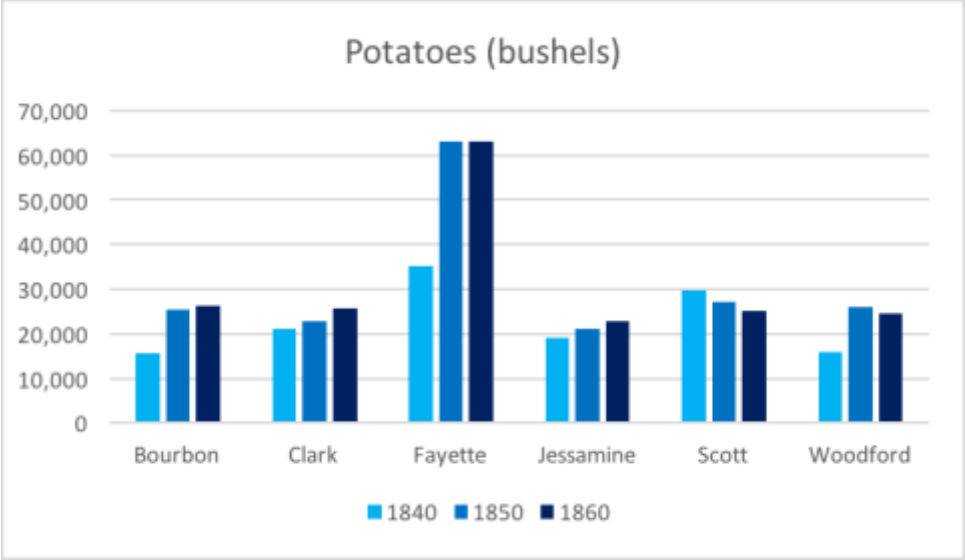

Figure 8.7 Bushels of Potatoes, 1840-1860

Judging from the relative number of bushels of "Irish" to "Sweet" potatoes, which county-level statistics only distinguished between starting in 1860, central Kentuckians seem to have preferred the Irish, or at least they cultivated almost four times as many, as seen in Figure 8.8.

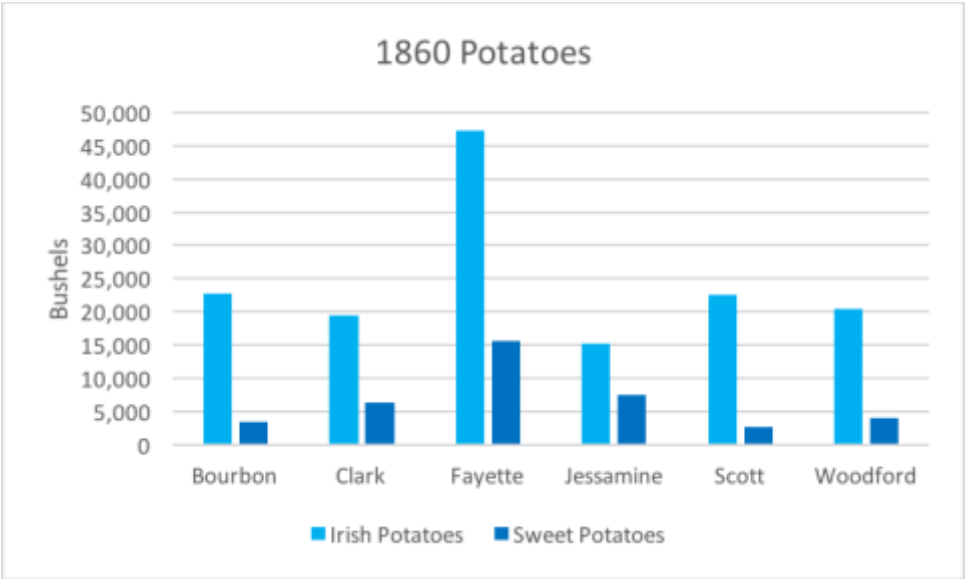

Figure 8.8 Bushels of Irish and Sweet Potatoes, 1860

This ratio set the Bluegrass apart from much of the slave South where the climate tended to favor sweet potatoes. It also broadly agrees with the findings from a sample

of individual farm returns from Bourbon County in 1850 and 1860 when 92 percent reported growing Irish potatoes in each enumeration, compared with 38 percent of farmers reporting cultivating sweet potatoes, which fell to 26 percent by the following decade.[628] Many of these farms likely consumed all of the potatoes they grew, but others produced surpluses for sale on local markets, along with other small crops.[629] Lexington's relatively large urban population made it the primary destination for this type of truck farming and Fayette County farmers grew more than twice as many potatoes as farmers in other counties.[630]

Almost invisible in the agricultural census returns, personal gardens nonetheless encompassed vital slices of the landscape.[631] Virtually every farm dedicated a slice of their cultivated landscape to producing fruits and vegetables for the household. The scope of each garden depended on the tastes, skills, and choices of the cultivator, often a woman in charge of food preparation, and ranged from the simple to the elaborate. Many, particularly among those families in which regular agricultural production required the bulk of the family's labor, planted and tended small garden plots with a few essentials such as beans and cabbage.[632] Others took on a much larger scale,

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[628] See Figure 8.5.
[629] For example, a Mr. Browner sold sixteen bushels of potatoes for $6.40 and a cabbage worth $1.00 to a Mr. Page on credit on January 11, 1848. Murray Family Papers, 1806-1899, Folder 3.
[630] See Figure 8.7.
[631] The exception necessitating the "almost" is in the broad category "Peas & Beans" included in the original agricultural census schedule returns, which only hints at gardens ubiquity as the Bourbon County sample shows 76 percent of farms reporting their cultivation in 1850, which fell to 48 percent the following decade. See Figure 8.5
[632] S.I.M. Major, April 16, May 21-22, 1844, S.I.M. Major daybooks, 1837-1853, SC 454, Kentucky Historical Society, Frankfort, Kentucky.

growing a dizzying array of plants intended for a variety of uses. Guides from regional agricultural journals give an idea the intricate composition of these large household gardens. Caroline Soule, for example, wrote to the *Kentucky Farmer* to describe the importance of growing "a thrifty herb patch in one corner of their ample gardens" and detailed the instructions for growing and range of culinary and medical uses for a variety of herbs including catnip, peppermint and spearmint, saffron, sage, "summer savory," thyme and sweet majoram, sweet basil, lavender, rosemary and lemon balm, and horse-radish.[633] Some took the time to cultivate "beautiful flower garden[s]" for the aesthetic pleasure they brought to their otherwise functional landscapes.[634] Most typically, however, gardens contained an individually curated assortment of vegetables and fruit, including beans, cabbages, asparagus, celery, spinach, and berries.[635] Farmers and gardeners also often constructed "hot beds" heated by sunlight and the decomposition of manure that allowed them to stretch the growing season beyond that what would have been possible through direct planting. Frequently these hot beds served as nurseries for the larger garden, allowing the gardener to get a jump start on the season and thus expand the portion of the year in which the household ate fresh.[636]

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[633] Caroline Soule, "From the Pioneer Farmer," *Kentucky Farmer* (Frankfort), Vol. 1, No. 2, August 1858, p. 21.
[634] Charles Lyell, *Travels in North America in the years 1841-2; with Geological Observations on the United States, Canada, and Nova Scotia* (New York: Wiley and Putnam, 1845), 59.
[635] S.I.M. Major daybooks, April 16, May 21-22 1844; "Horticultural Memoranda for August" *Franklin Farmer* (Lexington) Vol. III, No. 52, August 22, 1840, pg. 409; "How to Make an Asparagus Bed," *Kentucky Farmer* (Frankfort), Vol. 1, No. 8, 1859, 121.
[636] "Hot Beds," *Kentucky Farmer* (Frankfort), Vol. 1, No. 9, 134.

While the composition of home gardens reflected their primary focus on supplying calories and variety for the family diet, regional orchards often blurred the line between home production and commercial agriculture. Advertisements of farms for sale frequently emphasized the quality of their orchards, sometimes hinting at their economic potential in order to attract buyers as when a Scott County seller bragged that his "Orchard is equal to any in the state" with "large and numerous" trees "bearing a great variety of choice fruit," but often describing more modest operations like the "200 trees of choice fruit" that comprised one of the "conveniences" of life on a Fayette County farm.[637] Regularly touted as an essential means of adding fruit to a family's plate, some orchards operated on a more extensive basis, and the total value of orchard products exceeded $50,000 in the six-county study region in the 1860 agricultural census.[638] Some fruit, typically apples and peaches, went into fermented hard ciders and could be distilled into brandy using the same implements and similar techniques as those applied to bourbon production.[639]

In many ways, the orchards that grew the fruit resembled a hybrid landscape, mixing features of row-crop agriculture with those of the open woodland pastures of

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[637] *Franklin Farmer* (Lexington), Vol. 3, No. 1, August 24, 1839, pg. 8; *Kentucky Gazette,* August 13, 1840, 3.

[638] *Agriculture of the United States in 1860; Compiled from the Original Returns of the Eighth Census* (Washington: Government Printing Office, 1864), 58-65.

[639] Much of the Kentucky cider was consumed locally, but as early as 1811, more than six thousand barrels of cider flowed over the Falls of the Ohio during a six-month period, or forty percent as much volume as whisky. E. W. Gould, *Fifty Years on the Mississippi; Or, Gould's History of River Navigation* (St. Louis: Nixon-Jones Printing, 1889), pg. 195; on cider drinking in central Kentucky see J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Lexington: University Press of Kentucky, 1995), 62.

the grazing system. Unlike in a forest or even woodland pastures, agriculturalists asserted close control over the tree species of the orchards, removing all competitors and arranging their planting to maximize fruit or nut production, yet unlike in a row-crop field, farmers cared little to manage the understory and felt no need to control most weeds that might spring up. Since mature orchard trees stood up to grazing under their branches far better than yearly corn or wheat crops, orchards could play multiple roles throughout the year, rather than necessitating protection from the ravages of grazing stock.

With this understanding of the diversity of antebellum Inner Bluegrass agriculture, it is possible to situate the distinctive features of the system, such as hemp and the grazing system, within a proper context. Clearly, these were not the sole components of the agricultural landscape nor were they independent of the crops discussed above, yet they did help define the unique regional agroecosystem and influenced the incentives to which Bluegrass residents responded. The hemp industry continued to mature and evolve in tandem with the emergent cotton South and local manufacturing. While distinctive and celebrated, hemp should not be taken as representative of the typical Bluegrass agricultural operation. Indeed, the ten percent sample of Bourbon County returns from the agricultural censuses of 1850 and 1860 suggests that only 29 percent and a headscratching-0 percent cultivated the crop in those years, respectively. The 0 percent figure is an obvious statistical anomaly of the 10 percent sample, given that the county reported over a million and a half pounds of

hemp in that enumeration, yet it highlights the fact that hemp culture was the domain the elite, rather than the typical, white Kentucky farmer.[640]

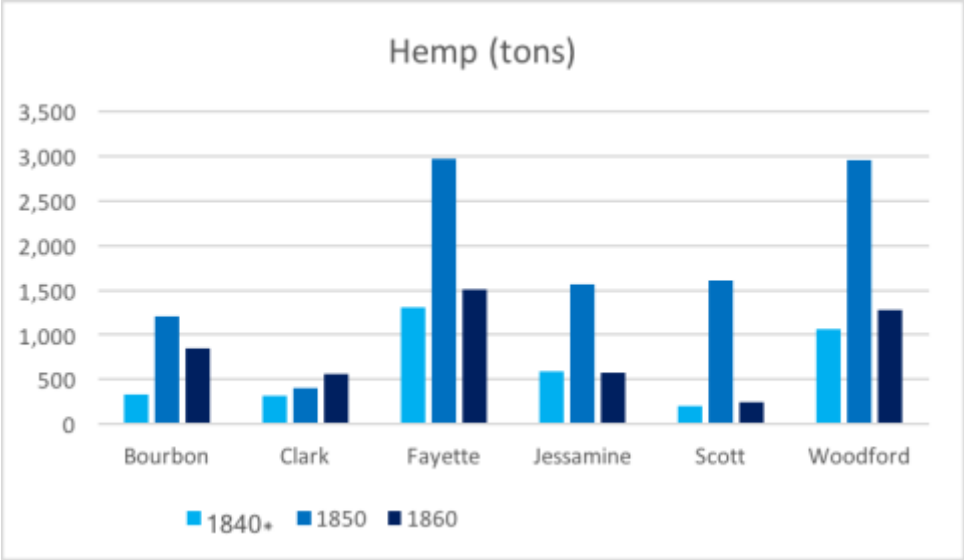

Figure 8.9 Tons of Hemp, 1840-1860
*hemp and flax reported together in Census

It took substantial resources to command the enslaved labor that white Kentuckians believed to be absolutely essential to the profitable cultivation of the crop. This white cultural conviction stemmed from the difficult, dirty and dangerous nature of hemp labor, from the seed to sale, and served to limit the portion of the landscape dedicated to the fiber.[641]

Nonetheless, hemp occupied important places on those farms where it was grown and since the region led the nation in its cultivation, hemp played a bigger role in the Inner Bluegrass landscape than anywhere else in the antebellum United States. In 1850, for example, Kentucky produced more than half the hemp grown in the entire

[640] See Figures 8.5 and 8.9.
[641] Hemp labor is discussed in further detail in the following chapter.

country and the six counties of the study area cultivated more than sixty percent of the hemp in the state.

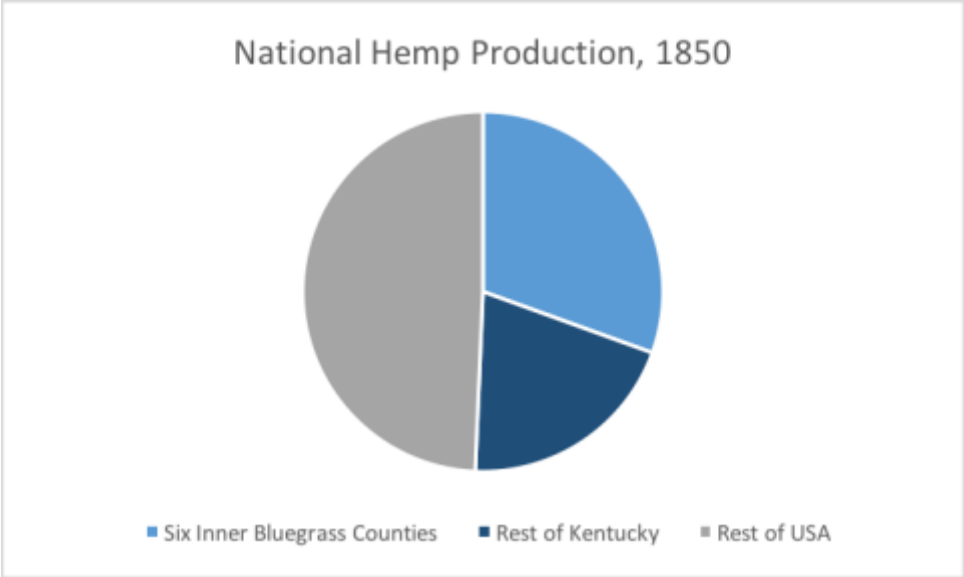

Figure 8.10 National Hemp Production, 1850

As a specialty crop, cultivated exclusively for sale, hemp production experienced large oscillations depending on market conditions.[642] Yet in flush years, hemp's importance as a cash crop gave the fiber an outsized position in the minds of Bluegrass planters and in the landscape; in 1856, for instance, a visitor to Woodford County remarked that hemp was "the main or only *money crop* raised in this section of Kentucky" since so much grain and grass was typically "converted into stock, and disposed of in that form" and noted some of the planters he talked with planted between fifty and one hundred and sixty-five acres that year.[643] The observer noted the "unusually high" prices over the

[642] See Figure 8.9.
[643] "Various Farm Processes in Kentucky," *Country Gentleman* Vol. VIII, No. 4, July 24, 1856, 57.

"past year or two" as part of his explanation for hemp's prominence, which highlights the way hemp farmers proved particularly sensitive to market conditions.[644]

On whatever portion of the Bluegrass landscape that planters dedicated to hemp cultivation, the agroecosystem underwent a distinct cycle of seasonal changes. Laborers, typically enslaved men, plowed the ground chosen to grow the fiber using oxen or a team of horses during February or March. During the spring, they ensured the field was clean of competing species that specialized in colonizing disturbed ground, also known as weeds, and sowed approximately one and a half bushels per acre, though more seed might be used on plots the planter deemed particularly fertile and able to sustain a denser stand of the fiber. Even at the standard rate, this approach to cultivation mirrored the evolutionary history of the hemp plant in which its ancestors and relatives grew in dense clusters, including the native cane of central Kentucky. Within a few weeks, the domesticated Bluegrass hemp grew sufficiently to shade out competing plants and required relatively little human labor until the harvest in August.[645] As the crop matured over the course of the summer, these plots formed distinctive features of the overall agricultural landscape and signified the operation of a market-oriented white Bluegrass farmer who, almost universally, leveraged enslaved black labor in its pursuit. The lifecycle of the hemp plant, especially that it grew well in dense stands that required minimal weeding and labor to sustain it in between spring planting and late summer harvest and between harvest and breaking in the winter, made it a flexible crop for

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[644] Ibid., 58.
[645] Henry Clay, "Hemp," *Western Agriculturalist and Practical Farmers Guide* (Cincinnati, 1830), 228-229; Hopkins, 47.

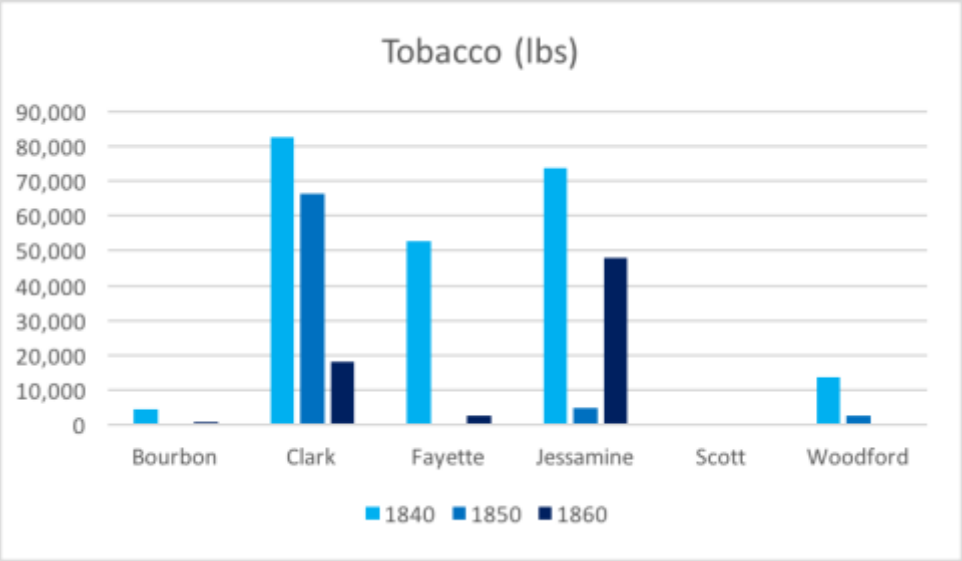
those seeking to maximize their return on investments in enslaved labor within the diversified system.

The harvest and initial processing described in the previous chapter in many ways resembled a compressed and simplified version of the next stages of the hemp plant's natural lifecycle. As the dense stands of hemp came to maturity, fell to the scythes or hands of enslaved men, and decayed in the fields, they replicated the life, death, and nutrient cycle of their undomesticated analogs, albeit in accelerated and simplified forms. Instead of the slow processes of nature guiding the plants' growth, reproduction, and decomposition, the intervention of human labor, expropriated from enslaved men, shortcut these steps to speed them along. The landscape events associated with hemp culture marked the passing of the agricultural year, whether standing ten feet tall in the field, stacked in shocks, or spreading across the ground for dew-retting. Hemp culture held varied implications for the Bluegrass agroecosystem. It demanded less of the soil than many comparable "money" crops of the nineteenth century, like tobacco or cotton, but also encouraged market connections and opened the system to oscillations linked to international events.

After retting, enslaved Kentuckians "broke" the hemp to further separate the valuable fiber from the surrounding woody stalk. Like the hemp harvest, breaking was a laborious process. It relied on relatively simple agricultural implements called hemp brakes that enslaved Kentuckians operated monotonously, often for days at a time during otherwise slack periods of agricultural labor. By repeatedly slamming a rough jaw-like contraption closed on bundles of hemp, enslaved Kentuckians separated the

woody stalk portions of the plant from the valuable fiber that went into bagging and rope.[646] The leftover materials remained in the fields after the harvest, often set ablaze in the evening which created a "picturesque" aspect to the landscape that many remembered distinctly.[647] On the whole, hemp formed a distinctive aspect of the material Bluegrass agricultural landscape, yet it arguably played a larger role in the experiential landscape of central Kentucky due to its high labor requirements; as we shall see, hemp required more of the people than the land.[648]

Despite stereotypical associations between central Kentucky agriculture and tobacco, valid for other eras, these decades saw little emphasis on the leaf. The most reported for any single county during these census enumerations amounted to just over eighty thousand pounds in Clark County in 1840 and declined to less than seventy thousand pounds in total for the six-county study region by 1860.[649]



[646] This process is discussed the following chapters.
[647] "Breaking Hemp" *Kentucky Farmer*, Vol. 1, No. 9, 1859, pg. 138.
[648] Hemp's experiential landscape is explored in more detail in chapter 8.
[649] For study area, see Figure 1.3.

Figure 8.11 Pounds of Tobacco, 1840-1860

The longstanding association between the state and tobacco reaches back at least to James Wilkinson's 1789 trip down the Mississippi, discussed in chapter three, when he pledged to "receive Tobacco on consignment for the city of New-Orleans" from settler farmers in the Bluegrass.[650] Tobacco culture also flourished in the region during much of the twentieth century and the "golden weed" occupies a conspicuous spot in the rural Bluegrass today.[651] Yet during the antebellum period tobacco played a decidedly marginal role in the composition of the landscape and priorities of the agriculturalists.[652] For example, none of the 143 Bourbon County farms sampled from the 1850 and 1860 agricultural census returns reported cultivating tobacco in the previous year.[653] This is not to say that tobacco retreated from the state as a whole, as counties along the Ohio River and in southwestern portion of the state continued to produce large and expanding numbers of hogsheads for market, and Kentucky production topped 100 million pounds by the 1860 census, more than double that reported three decades earlier.[654] Amidst the overall expansion, however, the Inner Bluegrass counties contributed a shrinking share, down to just 0.06 percent by 1859.

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[650] James Wilkinson and Peyton Short, "To the Planters of the District of Kentucky," 1789. Library of Congress online.

[651] I borrow the phrase from Drew Swanson, *The Golden Weed: Tobacco and Environment in the Piedmont South* (New Haven: Yale, 2014).

[652] International conflicts from the 1790s through the 1810s upset global tobacco markets and "dealt a body blow to Kentucky's tobacco economy from which it did not recover until the 1830s," W.F. Axton, *Tobacco and Kentucky* (Lexington: University Press of Kentucky, 1975), 43-46, quote on 46.

[653] See Figure 8.3.

[654] On the geography of antebellum Kentucky tobacco production see W.F. Axton, *Tobacco and Kentucky* (Lexington: University Press of Kentucky, 1975), 48-49.

The duel tendencies to conflate the Inner Bluegrass with the agriculture of the entire state and to assume a continuity between tobacco's eighteenth century arrival and it's twentieth century prominence combine to give a misleading impression of tobacco's importance during the antebellum era. The relative disadvantage of transporting the bulky hogsheads to market from the largely landlocked Inner Bluegrass, the availability of viable cash crop alternatives, and a belief that tobacco culture was capable of "*murdering* the soil" encouraged antebellum farmers in the region to steer clear of the crop.[655] The confluence of geography, transportation technology, economic incentives, agricultural theory and practice, and ecology worked against a widespread reliance on the environmentally taxing tobacco crop during the antebellum period, but this balance of factors proved precarious amidst the upheavals of subsequent decades.[656]

Taken as a whole, the Bluegrass agricultural landscape produced a wide variety of cultivated plants in relatively consistent volumes during the antebellum period, as seen in Figure 8.12.

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[655] The *Kentucky Farmer* recommended the article "Murdering Land" to the "careful attention of the farmers of Kentucky, particularly where tobacco is the staple," but noted "the system of *murdering* the soil…[is] not so common in the 'blue grass region'" where farmers cultivated different crops. "Murdering Land," *Kentucky Farmer,* (Frankfort) Vol. 1, No. 5, November 1858..

[656] Andrew Patrick, "Inner Bluegrass Agriculture: An Agroecological Perspective, 1850-1880" MA Thesis, University of Kentucky, 2012, for details on how the Civil War and emancipation led to a reconfiguration of the Bluegrass landscape, including the early stages of a dramatic rise in tobacco production.

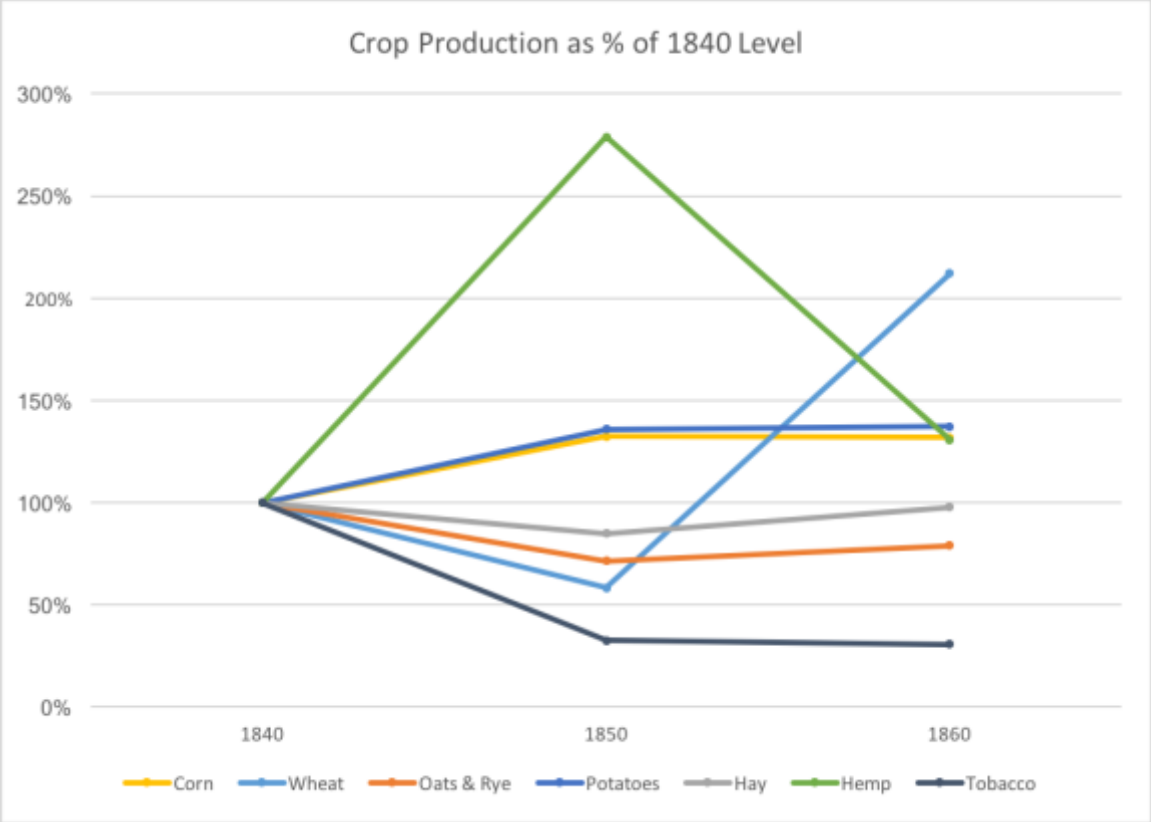

Figure 8.12 Crop Production as Percent of 1840 Level

This figure shows the production volume of various crops relative to their 1840 levels. In some ways, this diversity helps explain the relative dearth of scholarship on central Kentucky's slave-based agricultural system in relation to the more well-studied regions of the plantation South. Since Bluegrass farmers and planters did not rely on a single cash crop to the extent seen in districts where success or failure depended on market prices for a single commodity like cotton, rice or sugar, it can be challenging to tease apart the many moving pieces that together shaped the landscape. A decline in hemp prices, for example, might lead some Bluegrass farmers to re-focus their efforts on wheat cultivation or a rise in pork markets might have seen some invest in more in those animals and less in their cattle. Yet other Bluegrass farmers might interpret the same market fluctuations and come to different conclusions, perhaps doubling down on

their hemp in hopes of making up for smaller margins with greater volume or by selling their most valuable breeding hogs while their prices remained high. The myriad influences, and the individual responses to them, creates a more complicated narrative of agricultural development than that seen in regions where the price of a single crop can, correctly, be taken as the primary factor in the year-to-year calculus that the white men who directed the system used to determine their landuse strategy.[657]

Antebellum Bluegrass Grazing System

In addition to the cultivated crops discussed above, the grazing system for raising high-quality livestock provided opportunities for profitable market engagement with less stress on the landscape than would have been possible with a greater reliance on tobacco. Woodlots comprised essential portions of the grazing ecosystem and emerged as a distinctive feature of the broader agricultural landscape. In fact, the celebrated foundational species that characterized the system, *poa pratensis* or commonly known as bluegrass, became synonymous with the region. Residents bragged about their "famous woodlands, carpeted with the richest grass, and studded with the noblest trees" that supported "herds of [the] finest stock" of "peerless form."[658] In practice, this approach to raising livestock entailed cutting down "all the undergrowth and trees of

[657] While more diverse than many agricultural operations in the plantation South, those of central Kentucky were not completely isolated from the booms and busts of the commodity economy since much of their surplus production sold in the southern markets where the focus on cotton cultivation undermined the region's ability to feed itself. When the cotton economy declined, Bluegrass farmers often felt the secondary effects as the demand for Kentucky products like wheat and pork declined. Clark, *Agrarian Kentucky,* 37.

[658] "Salutatory," *Kentucky Farmer* (Frankfort), Vol. 1, No. 1, July 1858, 7.

every kind, not wanted for fencing, fuel or other economical uses" raking up and burning the leaves and "useless wood" to prepare the woodlot to be "seeded in bluegrass" in the "latter end of winter or very early Spring." The next year, the farmer could expect "a most luxuriant coat of bluegrass" that would reproduce itself "forever without further trouble" provided the stockman avoided "overstocking" the field. Some residents speculated that in no other "country on the globe" were agricultural "woodlands are so valuable as in Kentucky" due to their role as "a powerful auxiliary to the grazier," and pointed out that such Bluegrass woodlots often rented for "more net profit than…[that] realized from cleared land by many of those whose system impoverished themselves and their fields." They brokered no qualifications or possible rivals, however, with the confident assertion that "no rural sight can be so lovely as that of a woodland bluegrass pasture, where all the unsightly and useless trees are removed and the soil is coated with a fine close turf."[659]

Beyond supporting stock, woodlots also often functioned as farmers' first choice for the lumber required by various domestic and agricultural tasks from cooking to constructing fences, via the "useful" trees they left standing. As we saw in chapter two, initial settlers arrived in a broadly forested landscape and carved out cleared spaces over the course of decades, which left large swaths in woods for years. Yet the agriculturalists and their stock nonetheless transformed the remaining woods into a

[659] "Improvement of the Soil Resulting from the Grazing System of Kentucky," *Franklin Farmer* (Lexington), Vol. III, No. 36, 1840, 279-280; Thomas B. Stevenson, "Improvement of the Soil Resulting from the Grazing System of Kentucky [concluded]," *Franklin Farmer* (Lexington), Vol. III, No. 37, 1840, 289. Quotes 280.

simplified version of their former selves. Farmers typically did not go so far as to cultivate their woodlots during the antebellum years, but they removed much of the undergrowth to clear away the brush and scrub that competed with the grasses that stock preferred. A visitor in the 1830s described the result as "a beautiful and bounteous land" where "the pasture is very rich, and studded with oak and other timber" and farmers "graze and breed stock to a very great extent."[660]

By the late antebellum period, however, some observers began to question the sustainability of Bluegrass woodlots as part of the broader grazing system in light of ever-more-obvious landscape modifications, particularly deforestation. This spoke to an evolving understanding of the role of woodlots during the period in the decades after the 1830s when guides wrote enthusiastically about destroying all the "useless wood," gave a limited definition of what qualified as what qualified as "economical uses," and neglected to mention the significance of *planting* trees to augment the woodlots.[661] The juxtaposition of the antebellum landscape against the "forests…our fathers found [in] the most fertile portions of Kentucky" highlighted the rapidity of the change and emphasized the necessity of adopting a longer view of forest resources.[662] The author struck almost conservationist tone, arguing that the

> extermination of our primitive and noble old forests, without the substitution of others, would be the means of robbing the air which we breathe of its healthfulness and purity; the landscape of its chief beauty; our dwellings of their

[660] Frederick Marryat, *A Diary in America, With Remarks on its Institutions* (New York: Wm H. Colyer, 1839) pg. 139.
[661] "Improvement of the Soil Resulting from the Grazing System of Kentucky," *Franklin Farmer* (Lexington), Vol. 3, No. 36, 1840, pg. 280.
[662] "Transplanting forest and ornamental trees," *Kentucky Farmer*, Vol. 1, No. 10, April 1859, pg. 155.

> protection against the chilling blasts of winter, and the scorching suns of summer; and would drive from their homes amongst us our ten thousand feathered songsters, giving place to myriads of insects, to feed upon and destroy our crops and fruits and herds.

To these dire warnings, he added observations of negative effects of deforestation already underway including "the intenser heat of summer, and the greater cold of winter…the diminished size of…streams…the total extinction of many kinds of birds, and by the multiplication of many kinds of insects." He concluded "that the time has come, in the older and better portions of Kentucky, when the forests should be preserved, and still more trees should be planted."[663]

As the author's reference to the "feathered songsters" suggests, many of the region's undomesticated animals relied on the woodlots.[664] As we saw in the first section of the dissertation, a wide variety of native species populated the Inner Bluegrass of the late eighteenth century, many in large numbers. By the middle of the nineteenth, Kentuckians had largely reorganized the regional animal profile, particularly among large species like bison and cattle, yet this too can be overstated, or read to suggest a greater level of human control over the species with which they shared space than actually existed. "Pests," or species that competed with favored domesticates, plagued farmers and received harsh treatment, ranging from wolves, to crows, to insects, and even to fungi like the "rust" that sometimes afflicted wheat harvests.[665] Yet,

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[663] "Transplanting forest and ornamental trees," *Kentucky Farmer*, Vol. 1, No. 10, April 1859, 155-156.
[664] Ibid.
[665] On "rust" see "Sowing wheat," *Kentucky Farmer*, Vol. 1, No. 4, October 1858, 59. Farmers' ability to respond to these competitors typically declined inversely compared

the veritable corn and wheat buffets offered by row crop agriculture provided species like crows with ample resources to survive and even multiply from year to year despite farmers' best efforts even as the increasing segmentation of the landscape and density of the population wolf-hating humans meant large predators went into precipitous decline.[666] The populations of other large mammals, including deer and elk, either declined in numbers or vanished completely due to overhunting and habitat loss. Some prominent part-time residents, such as the famous passenger pigeon, suffered complete extinction events. Many smaller animals, like rodents and insects, proved particularly numerous, unwelcome and hard-to-banish neighbors in the agricultural landscape. One farmer remarked the increasing value of cats, relative to dogs, in the more heavily cropped landscape of the antebellum era, noting the "$500 worth in killed sheep" dogs had cost him in the previous five years could be balanced against what the "cats have perhaps saved" him in "the corn" by patrolling for rodents, birds and other pests.[667] Observant contemporaries recognized the connections between human landuse and secondary ecological effects driving these changes as when a contributor to the *Kentucky Farmer* blamed the rising numbers of destructive insects on declining bird populations linked to careless deforestation.[668] Yet taken as a whole, the animal

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to the pests' size; wolves were large enough to be hunted and eliminated in a way that was not true for insects.

[666] The state continued to pay bounties for wolves well into the antebellum period. Kentucky Revenue Department, *Report of the Second Auditor for the Year Ending on the Tenth Day of October, 1839* (Frankfort: A.G. Hodges, State Printer, 1839). Issue. 1-2, 12, 16, 52.

[667] "Cats and Dogs" *Kentucky Farmer*, Vol. 1, No. 8, 1859, 122-123.

[668] "Transplanting forest and ornamental trees," *Kentucky Farmer*, Vol. 1, No. 10, April 1859, 155-156.

population of the antebellum Inner Bluegrass continued to shift toward a greater portion belonging to just a few species of livestock, making those animals increasingly prominent features in the landscape.

Not only did Bluegrass livestock browse woodlots and grassy fields during the growing seasons, farmers also relied on energy produced by the grazing system to see their animals through the winter months. Cultivated as hay to feed livestock, grass species such as timothy and red clover found favored places within the agricultural landscape. Hay provided nutrient-rich feed that was especially needed during the cold season when animals' caloric demands spiked as they burned more energy to regulate their temperature and nutritious grass in the field was in short supply. Farmers had hayfields cleaned out by March each year, using both human and animal labor to remove all "noxious weeds" to provide space for the grasses to flourish. After that month, stock raisers kept their animals out of the lightly cultivated meadow until the crop was cut and harvested, typically in July, which most judged the "best stage of the grass for making sweet and nutritious hay." This common approach allows caloric surpluses produced during the prime growing season to be stored temporarily and doled out to hungry livestock, whether directly to animals living on the same farm or indirectly via market exchange.[669] Figure 13 shows relatively stable levels of hay produced over the three census enumerations.

[669] "Making Hay in Kentucky," *Kentucky Farmer*, Vol. 1, No. 1, July 1858, 9.

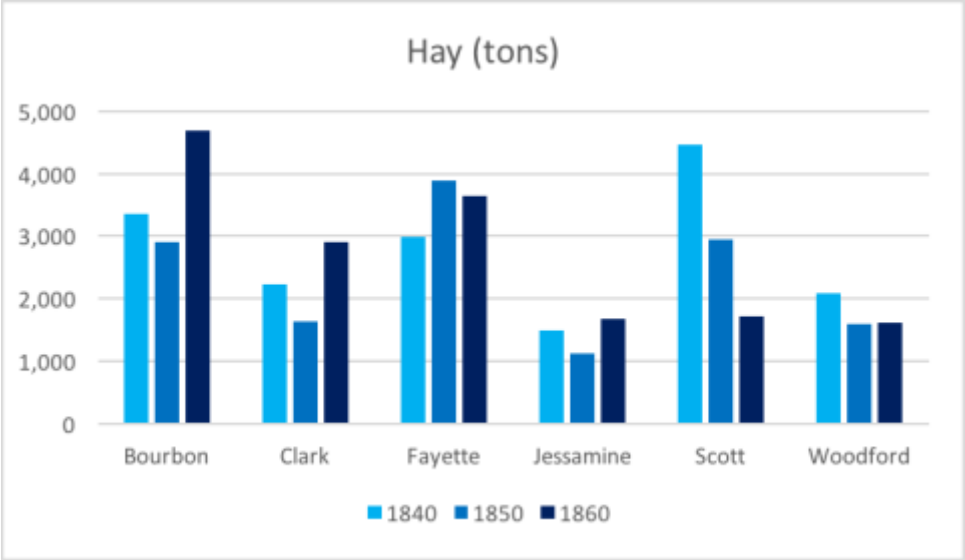

Figure 8.13 Tons of Hay, 1840-1860

Stable production figures do not imply static field locations as hay might be used as one in a rotation of crops, meaning a single field might see a range of crops over the course of a decade. For example, a contributor to *The Kentucky Farmer* responded to reports of recent trials conducted in England and Virginia that purported to demonstrate the viability of grain crops on the same piece of land for seven consecutive years with an exasperated reminder that "nothing has been better established, in the practice of agriculture, than the wisdom of a rotation of crops" which had long been sustained by "the light of common experience." He needed no elaborate "trials" to prove his point, instead, he simply pointed to what he viewed as a lamentably common sight in the region, "a puny field of corn, which was a forest six years ago, and has already had five crops of this grain taken from it," which he juxtaposed against the healthy harvests from fields that had been on a rotation between corn and wheat during

the same period.[670] Another farmer recorded his system in his journal, laying out a four-year pattern in which a field grew corn in year one, winter wheat, rye or oats in year two, served as a pasture of clover and timothy in year three, and produced grass to be mowed for hay in year four.[671]

Bluegrass farmers often applied the "grazing system" moniker to "the entire agricultural operations" on a landowners' holdings. Promoters of this type of holistic view argued that theirs was a refined relationship with the land they inhabited, one that allowed them to "*preserve*, if not *increase*, the original richness of the virgin soil" via the "judicious rotation of crops, including grasses." They urged their neighbors living on "'*worn out*'" land to embrace the grazing system in order to restore fertility to plots stripped of nutrients by poor crop rotations in previous generations, which they blamed on shortsighted pursuit of market production, fleetingly in tobacco, followed by "grain, exported to distant markets or consumed in the infernal distilleries." Conveniently for the promoters of the grazing system, by the antebellum era they had a scapegoat for what they cast as the earlier wasteful practices, namely those who had recently "fled out this garden of Eden, to procure, still further west, *fresh* lands." The agricultural reformers' prescription entailed increased attention to crop rotations, incorporating a large percentage of land as pasture and raising livestock to harvest (graze) the primary production of the landscape and transform it into a higher value product (grow). They compared their results with those achieved by the most advanced contemporary

[670] "Rotation," *Kentucky Farmer* (Frankfort), Vol. 1, No. 2, August 1858, p. 29.
[671] John W. Jones diaries, 1857-1876, University of Kentucky Special Collections, 75M26.

methods of "manuring" and came away convinced their "system not only returns more vegetable matter to the soil than it takes from it" but also "replaces more vegetable food in the fields than any other system," with far less labor. Successful Bluegrass agriculturalists trump card in arguments for their superior system lay in the "large profits…realized under the operations of the grazing system."[672] Whether or not the proponents of this agricultural landscape were correct in their appraisal of their creation as peerless, it nonetheless demonstrates the ways their ideas and actions emerged from the intersection of their lived relationship with the land and their market incentives. They cultivated and applied knowledge of the agricultural environment in order to maximize landscape fertility. And they measured fertility in terms of sustainable profits.[673]

Implementing the grazing system necessitated segmenting and selectively limiting access to different slices of the landscape to specific domesticated species. Not only did this require labor, as we have seen, but it also led to a heightened emphasis on fencing. Fences, whether split rail or stone, formed foundational components of the built environment and shaped the ways in which other components of the agricultural landscape interacted. Both types of fences drew of the local resources to reconfigure the distribution of plants and animals: wooden fences did so by reducing the tree cover

[672] "Improvement of the Soil Resulting from the Grazing System of Kentucky" Vol. 3, No. 36, May 2, 1840, 279.
[673] As we shall see in later chapters, not all central Kentuckians shared their definitions, vision, or access to the means to achieve them.

in the woodlots, while stone fences tapped into the limestone subsoil for materials.[674] By the 1830s, a visitor rated the fences as "excellent," remarking on their importance for the "neatly kept" grounds of the grazing system.[675]

Since the common, but not universal, practice of field rotations meant the Inner Bluegrass landscape resembled a slowly shifting mosaic in which daily, seasonal, and yearly cycles unfolded, the livestock that populated the agroecosystem resembled the mosaic's most transitory elements, flitting from one space to the next and influencing each in turn. Over the course of the antebellum years, the region's reputation for high-quality, high-value livestock became increasingly well-established across the nation, even as the overall number of many species actually declined, as we shall see. This apparent paradox stemmed from the successful shift toward tighter control over the genetics of individual animals, made by the architects of the slave-reliant agroecosystem, in pursuit of a profitable agricultural commodities suited to local ecology.

Somewhat frustratingly, county-level agricultural census schedules combined horses and mules in the same category until 1860 which makes direct comparisons difficult, but Figure 8.14 suggests an overall increase in the number of equine livestock by more than nine thousand from the 1840 census to the 1860, though with the lowest number in reported in 1850.

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[674] Carolyn Murray-Wooley and Karl Raitz, *Rock Fences of the Bluegrass* (Lexington: University Press of Kentucky, 1992).
[675] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 66.

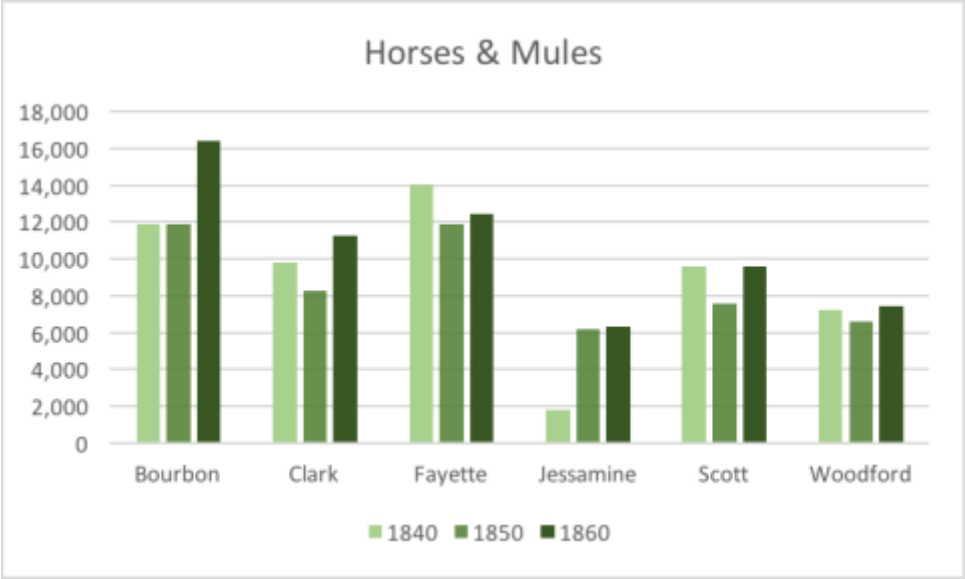

Figure 8.14 Horses and Mules, 1840-1860

Such fluctuations notwithstanding, horses and mules were prominent members of the Bluegrass agricultural community, both as products and as productive helpmates. In fact, every farm in the sample of Bourbon County original agricultural returns reported the presence of horses.

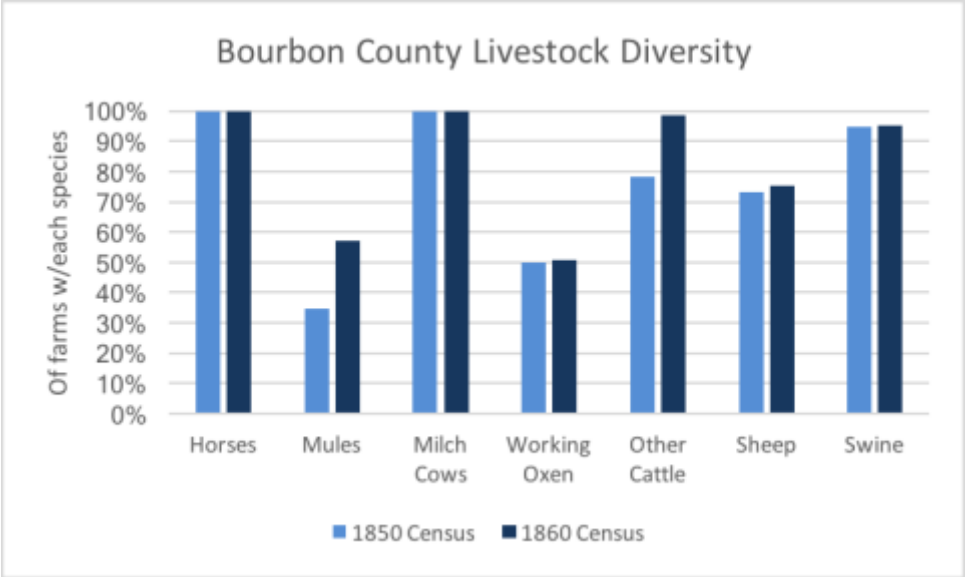

Figure 8.15, Bourbon County Livestock Diversity, 1850-1860

As an indispensable means of transportation and source of agricultural power, Bluegrass horses played vital roles in shaping the landscape, while placing their own demands upon it. They pulled the implements that broke the soil and prepare it for planting. They helped pull stumps from the cleared forests. They drug reapers, mowers and other mechanical harvesters through mature fields of grain. They powered much of the machinery that processed the raw agricultural surpluses into more useful items, whether at mills or at hemp manufactories. Horses also served key roles transporting people and goods across the landscape, whether a short ride to visit a neighbor or a lengthy journey to Louisville or beyond.

In addition to these types of everyday uses, a select few Bluegrass horses lived more dramatic lives, testing their speed, strength and endurance against each other at the racetrack. Of all branches of central Kentucky agriculture, thoroughbred horse breeding has surely received the most attention from historians and the public alike. Famous horses ranked among the most celebrated and widely known residents of the Bluegrass during the antebellum era, including the legendary “Lexington” and “Glencoe.” Their prowess on the track earned national press coverage and created celebrity athletes. It also created demand for their genetic material as breeders sought the “best” lines to improve for their own stock. Having such in-demand horses standing stud, or available for fee-based breeding services, could generate significant income for Bluegrass planters. For example, Scott County breeder John Kilbey charged thirty dollars

per mare as the stud fee for "the distinguished race horse, Rodolph" during the 1840 season and many stallions were quite active.[676]

A close examination of the career of a single horse helps to illustrate the roles thoroughbreds played in the slices of the agroecosystem managed by some of the wealthiest planters in the Bluegrass. It also demonstrates some of the ways in which horse breeding fostered unique economic connections and cultural associations that created their own momentum and helped turn the region into the "horse capital of the world."[677] In 1850, the retired merchant-physician and prominent breeder Elisha Warfield reared "the most outstanding Thoroughbred of the nineteenth century" in Fayette County.[678] After naming the colt Darley, the elderly Warfield leased the horse's racing rights to a formerly enslaved Kentuckian known as "Burbridge's Harry." Harry evidently honed Darley's natural talents as the young thoroughbred won his first two stakes races at the Kentucky Association track in Lexington in 1853. Yet, the track rules against black participation meant the horse ran in Warfield's colors, despite the lease, and when Warfield accepted an offer to buy Darley made by a racing syndicate, Harry lost in the exchange.[679] This is another prime example of how the agroecosystem exploited the expertise of black Kentuckians, both enslaved and free, to the financial

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[676] *Kentucky Gazette* (Lexington), August 13, 1840, 4.
[677] This "title" features prominently in the city of Lexington's tourist materials and public signage. http://www.visitlex.com/about/horse-capital-of-the-world/ (accessed November 16, 2016).
[678] Maryjean Wall, "'A richer land never seen yet': Horse Country and the 'Athens of the West,'" Daniel Rowland and James Klotter, eds., *Bluegrass Renaissance: The History and Culture of Central Kentucky, 1792-1852* (Lexington: University Press of Kentucky, 2012) pg. 150.
[679] Ibid., 150-151.

benefit of white men who controlled the legal and economic structures that supported the agricultural landscape.

The syndicate soon changed Darley's name to Lexington, a nod to his birthplace, and entered him in stakes races for large purses in New Orleans, then the horseracing center of the country. Lexington's on-the-track exploits, especially his rivalry against Lecomte, drew tens of thousands of spectators in person and tens of thousands more read about them in national periodicals like *The Spirit of the Times* and the *New York Times*. The turn-by-turn accounts of races wrung every drop of drama from events including the "Great State Post Stake" that pitted the best horses from a number of southern states against each other, head-to-head match races, and time trials that saw Lexington set records that stood for decades.[680] At the same time, Lexington helped to establish Kentucky's reputation as the preeminent breeding ground for superior racing stock.

This association took concrete form when blindness forced Lexington from the track and his owners returned him to the Bluegrass to stand stud in 1855. Robert A. Alexander of Woodburn Farm in Woodford County subsequently purchased the retired racer for the then-unheard-of $15,000. Two decades later, Alexander remembered the skepticism he encountered about the decision to invest such a vast sum in an unproven sire, but he predicted he "would sell one offspring…for more money than he had paid"

[680] *Spirit of the Times*. "The Great Match Race at New Orleans," December 17, 1853, "New Orleans (La.) Spring Races." April 15, 1854; "Lecomte and Lexington—Letter from Gen. Wells, owner of Lecomte." *New York Times*. September 5, 1854; "The New Orleans Races—Lecomte Beaten" *New York Daily Times*. April 17, 1855.

for Lexington.[681] Time proved Alexander prescient. Lexington's son Norfolk and Kentucky each exceeded their father's price tag, selling for $15,001 and $40,000, respectively.[682] Ultimately, Lexington's stud career included sixteen years as the leading sire in the United States. His offspring won more than one thousand races and would have won far more if so many had not been destroyed during the Civil War.[683]

The success of horses like Lexington, his progeny, and peers contributed to an increasingly strong association between the Bluegrass and thoroughbred horses in the minds of sportsmen throughout the nation. Their victories on the track helped establish a premium price for prime Kentucky horses and illustrating the profits possible via horse breeding to those farmers in the region with the resources to enter the field. Based in part on a belief that the fertile soil created by the limestone geology imparted strength to animals raised on grasses grown in the region, the Bluegrass fame for thoroughbreds became self-reinforcing. As more Bluegrass breeders specialized in thoroughbreds, it created a community of likeminded planters who exchanged ideas and genetic material, entrenching traditions of landuse that continue into the twenty-first century. The concentration of breeding operations in the region made it a natural choice for those looking to procure blooded stock, further strengthening the association. As high-value agricultural products, thoroughbreds contributed to the financial viability of the grazing system by reducing the pressure to maximize the production of lower-value

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[681] "Lexington" *Prairie Farmer* Reprinted from the *Frankfort Yeoman*. July, 17, 1875.
[682] Ibid.
[683] "Lexington" National Museum of Racing and Hall of Fame, https://www.racingmuseum.org/hall-of-fame/lexington (accessed November 16, 2016).

commodities via higher-intensity landscape usage; they allowed Bluegrass planters to raise a few thoroughbreds and collect stud fees using woodland pastures rather than plant vast acreage in wheat, hemp, or some other cash crop in order to wrest the same level of profit directly from the soil.

Mules and donkeys occupied a distinct place from their equine cousins in the agricultural system. Bourbon County, in particular, came to specialize in breeding mules, many of which were ultimately destined for the cotton South.[684] Mules actually outnumbered horses in Bourbon County in 1860, yet only 57 percent of sampled farms reported having them.[685]

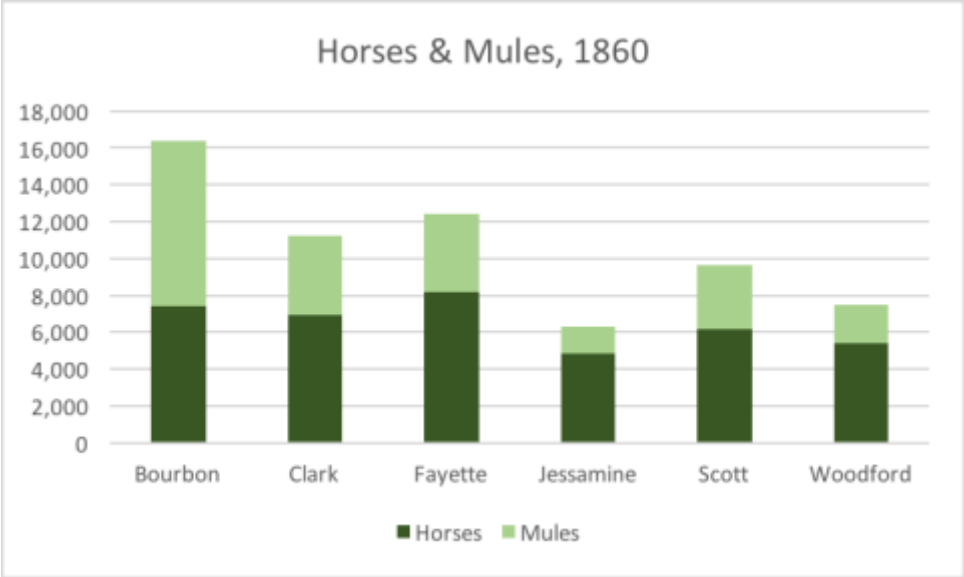

Figure 8.16 Horses and Mules, 1860

[684] On this relationship see Thomas D. Clark, "Live Stock Trade Between Kentucky and the South 1840-1860," *Register of the Kentucky Historical Society* Vol. 27, No. 81, 1929, pg. 569-581; Elizabeth Ritter Clotfelter, *The Agricultural History of Bourbon County, Kentucky Prior to 1900*. Lexington, Ky., 1953. MA Thesis, University of Kentucky.
[685] See Figures 8.16 and 8.15.

This higher concentration of mules on a smaller number of farms speaks to the way in which Bourbon County breeders treated their mule operations as a method to produce a profitable export commodity; as a local newspaper noted in 1854, "the feeding of mules has become a principal branch of our agricultural industry."[686] Uninterested in flashy speed or the potential fame, sky-high sale values or stud fees like those engaged in the horse racing industry, mule breeders contented themselves with steady returns from sales like those at court day in Fayette County in May 1859 where seventy mules sold for more than $13,000, the types of transactions that ultimately helped supply the cotton South's need for nimble-footed animal power to work amongst the plants.[687] A visitor remarked that central Kentucky mules were "in such demand for the south that they can hardly produce them fast enough for the market."[688] Some argued directly that mules represented a better financial investment for the stockman of Kentucky than horses, noting that mules sold at two-years could bring as high of prices as horses at three, required less food, were less susceptible to disease, lived longer and could "perform more labor, according to his size, on feed on which the horse would starve."[689] Many undoubtedly disagreed with these calculations, yet enough agreed to make mule breeding an important aspect of the central Kentucky grazing system and agricultural landscape.

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[686] *Western Citizen* (Paris, Ky.) July 14, 1854.
[687] *Kentucky Farmer* Vol. 1, No. 11, May 1859, 170.
[688] Frederick Marryat, *A Diary in America, With Remarks on its Institutions* (New York: Wm H. Colyer, 1839), 139.
[689] *Kentucky Farmer* Vol. 1, No. 10, April 1859, 159.

While the number of cattle in the Inner Bluegrass declined by almost six thousand from 1840 to 1860, this had little bearing on their importance in the landscape.

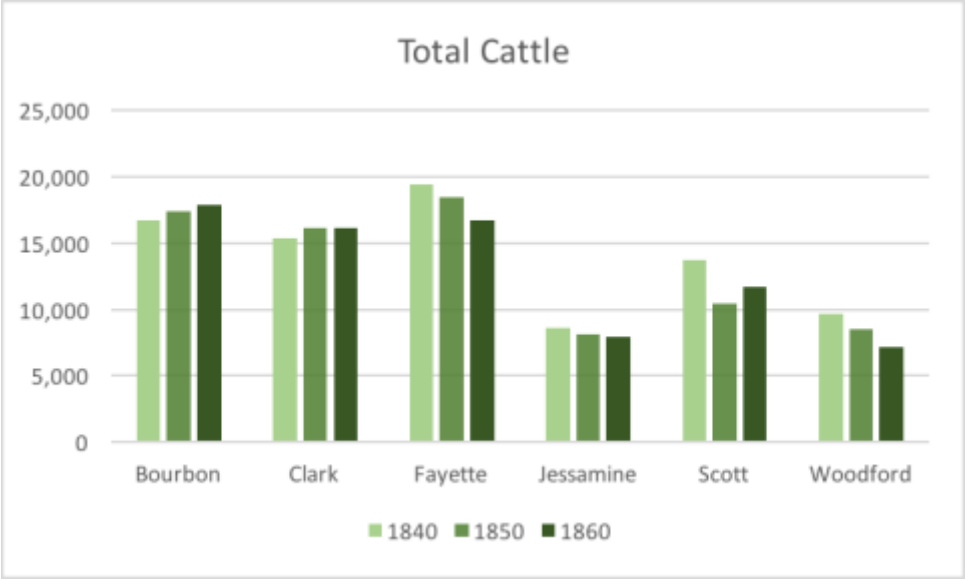

Figure 8.17 Total Cattle, 1840-1860

While some county-level statistics show slightly lower overall cattle populations, the sample of farm-level agricultural returns from Bourbon County reveal their continued ubiquity with all farms reporting milk cows and at least half utilizing working oxen in both 1850 and 1860, while "other" cattle called could be found on almost four in five in 1850 on virtually every farm the following decade.[690] These subdivisions in the individual returns more accurately reflect the variety of functions different cattle filled in the agroecosystem than county-level statistics. "Milch" cows, as the agricultural census schedule labeled them, provided the raw material for a range of dairy products from milk to butter and cheese. These were staples of the antebellum diet. Working

[690] See Figure 8.15.

oxen, as the name implies, took an active part in shaping the agricultural landscape, providing power that men and women directed toward clearing fields, ploughing, and other heavy tasks. "Other" cattle included those engaged in breeding operations and a larger share destined to end as beef and hides. A lively market in the latter, such as that as evidenced by prices like $4 to $4.50 per hundred pounds of beef in 1835, ensured a ready market for the products of the former, like those seen at stock sales where highly appraised animals could sell for thousands of dollars.[691] As with thoroughbred horses, the emphasis on bloodlines and genetics incentivized farmers to offer prized individuals for stud, such as "Comet Halley" a "thorough bred Short-horned Durham Bull" that was available to "serve cows…at $25" each.[692] Farmers also often consumed some of their own produce at home. Visitors, like Englishwoman Harriet Martineau reported the Kentucky beef as a delicacy to be savored.[693] The increasing sophistication of beef packing, both salted and pickled, encouraged the export of processed beef via the range of transportation avenues developing during the period.

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[691] William L. Hedges papers, 1835-1850 SC 126, Kentucky Historical Society, May 10, 1835. For the high end see the North Kentucky Cattle Importing Company, which turned a capital investment of $25,000 in imported English stock into over $55,000 in sales in the resulting auction. "The Introduction of Imported Cattle in Kentucky: Extracts from the Herd Book of the North Kentucky Cattle Importing Company, 1853," *Register of the Kentucky State Historical Society*, Vol. 29, (1931), 400-401.

[692] "Comet Halley" *Franklin Farmer* (Lexington) Vol. 3, No. 42, June 13, 1840, pg. 336. For more on the trend toward "improved" cattle see Otis K. Rice, "Importations of Cattle into Kentucky, 1785-1860" *The Register of the Kentucky Historical Society* Vol. 49 No 166 (1951), 35-47.

[693] Harriet Martineau, *Society in America* Two Vols. in One. (Paris: Baudry's European Library, 1842) Vol. 2, 17.

Hogs made a greater mark on the landscape in 1840 than twenty years later. Their numbers declined by more than fifty thousand, or more than a quarter, but swine continued to outnumber people nearly two-to-one.

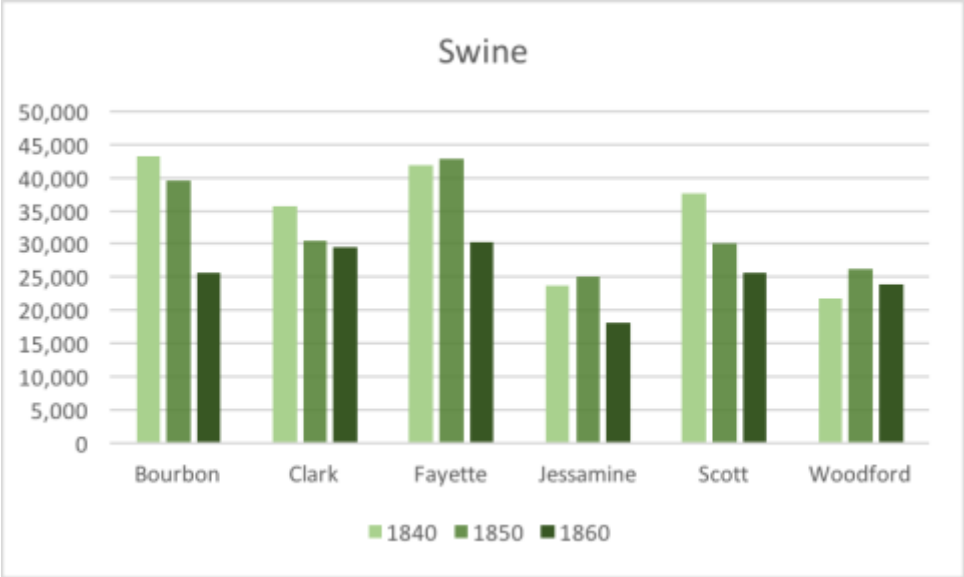

Figure 8.18 Swine, 1840-1860

The falling number of pigs, more precipitous from 1850 to 1860 than in the previous decade, should not distract from their still impressive numbers by the latter date when they almost equaled the total number of cattle and sheep combined. Additionally, some level of hog raising characterized virtually all Bluegrass farms; for example, 95 percent of the agricultural census returns sampled from Bourbon County in 1850 and 1860 reporting raising hogs.[694] Pork formed a cornerstone of the local diet. Whether as bacon, sausage, rumps, hams, shoulders, ribs, or lard, pork served as a key protein for most Bluegrass residents.[695]

[694] See Figures 8.15.
[695] The sample of available cuts, each with a different price, comes from *Kentucky Farmer* (Frankfort), Vol. 1, No. 8, February 1859, 113.

Some of the hogs of the antebellum era bore little resemblance to their frontier and early-statehood predecessors. "Improved" breeds such as imported Berkshires and Irish hogs embodied distinct physical traits like their "fine length and big bones with beautiful forms" which buyers judged to carry financial value.[696] Another farmer made the point a bit more bluntly, instructing his buyer that "the larger they are the better I like them."[697] The hogs also lived significantly different lives than earlier Kentucky pigs, as fewer spent time foraging in unfenced commons after the countryside took on an increasingly settled appearance and segmented aspect. Antebellum farmers took a more active role in managing the ways their swine interacted with the landscape, taking more control over their movement via fencing and cycling passels of hogs from one space to another where they might clean a field after harvest or fatten on fodder.

During the antebellum decades, overland hog drives, conducted by drovers, often to southern markets, remained an important method of getting Bluegrass produce to a viable market. For example, the Hedges family of Franklin County continued to contract with drovers to guide their hogs to distant markets, and sell them upon arrival. The family's letters reported on market conditions and speculated about whether "the drovers that went to the Southern Market will make money" or worried that "the eastern drovers…have all lost money on their hogs" as they decided where to send each group of hogs.[698] Yet, this holdover from the earlier era of livestock sales declined in

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[696] "Improved Hogs and Sheep for Sale" *Franklin Farmer* Vol. 3, No. 1, 1839, 7.
[697] Thomas Harrison to M.H. Murray, November 22, 1845, Murray Family papers, 1806-1899, MSS 35, Kentucky Historical Society, Frankfort, Kentucky.
[698] James Hedges and John Hedges to William Hedges, January 23, 1844, "William L. Hedges papers, 1835-1850" SC 126, Kentucky Historical Society, Frankfort Kentucky.

significance over the course of the antebellum period. Hogs, and other livestock for that matter, necessarily lost a portion of the body weight, and hence value, on the long walk to eastern markets, as was the case in the 1810s when Kentucky drovers took hogs to South Carolina cities, or to southern buyers as was more typical by the early years of the antebellum era.

This loss, and the contract with the drover, looked less and less appealing to Bluegrass hog raisers as regional pork processing centers including the famous "porkopolis" of Cincinnati refined their processes for preserving and utilizing the meat.[699] In fact, some central Kentuckians during the period aimed to supplant the ascendant western pork capital, or at least deprive it of Bluegrass swine, by establishing their own hog processing industry. One partnership, for example, looked into the possibility of securing English contracts for "A No. 1" pork and beef that they proposed to process locally.[700] Others flexibly exported their pork in a variety of forms, to a variety of markets, increasingly taking advantage of improved transportation technologies and ease of access. Harry Innes Todd, one of the members of the above scheme to establish a meat processing operation, for example, a Frankfort-based steamboat captain, turned owner, frequently included Bluegrass pork in his cargo when travelling down the

[699] "Porkopolis" was a common title for antebellum Cincinnati, see for example Charles Richard Weld, *A Vacation Tour in the United States and Canada*, (London: Longman, Brown, Green and Longmans, 1855), 206. Joseph F. Hedges to William L. Hedges, November 22, 1850, "William L. Hedges papers, 1835-1850" SC 126, Kentucky Historical Society, Frankfort Kentucky. The new transportation that carried agricultural products to market receives further consideration the following chapter.

[700] Crittenden to Harry Innes Todd, April 3, 1849, Harry Innes Todd and George Davidson Todd Papers, MSS 5, Kentucky Historical Society, Frankfort, Kentucky.

Kentucky, Ohio and Mississippi Rivers.[701] In this, Todd simply continued long-standing practice, albeit with updated technology since more barrels of pork passed the Falls of the Ohio than barrels of whiskey as early as the first decade of the nineteenth century.[702]

Deep into the antebellum era, pork, and other agricultural products, continued to function as mediums of exchange, especially as merchants operated to facilitate commercial transactions. Franklin County farmer Henry Murray Jr.'s accounts with William H. Greenup and Co. from 1847 to 1849 demonstrates how these exchanges worked; during these years, Murray purchased things like sugar, tobacco, bedding, nails, candles, fish, eggs, beeswax, whiskey, vinegar and a coffee pot and paid down his account four times, paying twice with cash and twice with pork products, such as bacon and lard.[703] Essentially, Kentuckians transformed pork into coffee and nails; hogs consumed the primary production of the landscape and turned it into meat and fat that people ate, traded and sold.

The number of sheep raised by Inner Bluegrass farmers declined dramatically from the census of 1840 to that of 1860, by which time more than forty-five thousand fewer roamed the fields and woodlands of the Inner Bluegrass.

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[701] Harry Innes Todd and George Davidson Todd papers, C. P. Bertrand to Harry Innes Todd, July 22, 1840. Kentucky Historical Society.
[702] E. W. Gould, *Fifty Years on the Mississippi; Or, Gould's History of River Navigation* (St. Louis: Nixon-Jones Printing, 1889), 195.
[703] H. H. Murray Jr. Accounts with William H. Greenup & Co., Murray Family Papers, 1806-1899, MSS 35, Kentucky Historical Society, Frankfort, Kentucky.

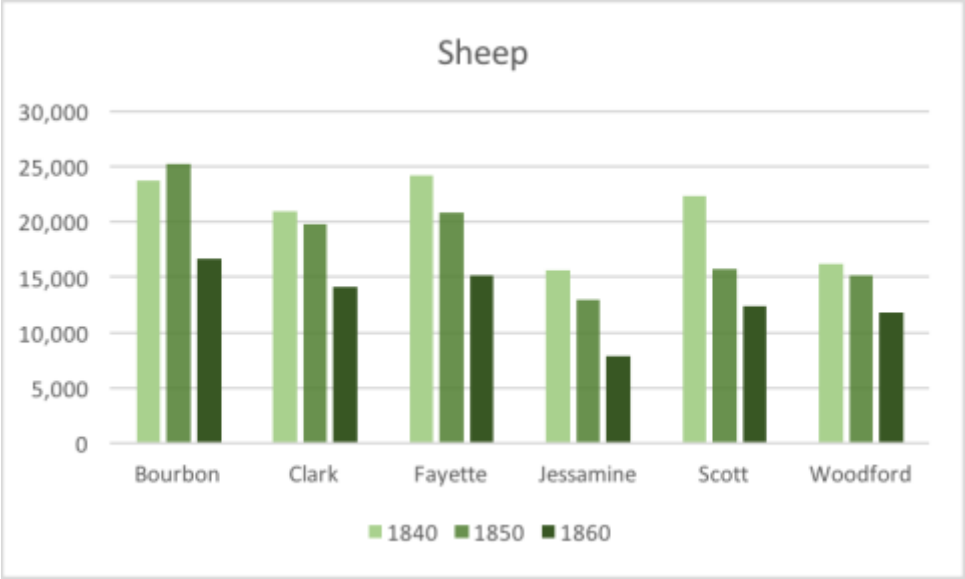

Figure 8.19 Sheep, 1840-1860

Yet, the gradual rise in pounds of wool sheared during the same period suggests these fewer animals continued to produce more of what humans valued, or framed slightly differently, the agroecosystem produced wool more efficiently on a per sheep basis in 1860 than it had in 1840.

Figure 8.20 Wool, 1840-1860

This shift entailed a transition to a greater emphasis on specific qualities of individual sheep, namely wool production, instead of focusing on expanding the overall number.

Sheep were a common feature in the Bluegrass landscape, with three in four of the sampled Bourbon County farms from the agricultural census returns from 1850 and 1860 reporting their presence.[704] During the antebellum period many Bluegrass stockmen began to emphasize bloodlines as a guide to future value and productivity, including a heightened interest in imported stock.[705]

Higher value sheep, especially in light of declining numbers of predators like wolves, led to distinctly different views of the domesticated dog than had prevailed in the pioneer or early statehood period, when canines played key roles in protecting stock from the predation. By the late antebellum period, some considered "the dog, and his *brother, ignoramus legislator*; who…allows the dog to run at large unrestrained by law" the only remaining threats to Bluegrass sheep.[706] Another observer noted that "dogs, in five years, have injured me over $500 worth in killed sheep."[707] Another contributor elaborated that "the great number of useless and worthless dogs" killed "many thousand sheep every year" and, by depriving the sheep owners of their investment, deterred "many millions more which, might, otherwise would be raised." He suggested "a moderate tax upon dogs," noting that the "truly valuable" earned their keep and

[704] See Figure 8.13.
[705] "Importation of Sheep" *Franklin Farmer* (Lexington) Vol. 3, 1840, 237; "Raising Sheep in Kentucky" *Franklin Farmer* (Lexington) Vol. 3, 1840, 294.
[706] "Sheep Husbandry," *Kentucky Farmer* (Frankfort) Vol. 1, No. 2, 1858, 24. Some dogs continued to be used to herd sheep and for other agricultural purposes, but promoters of sheep culture were far more concerned with preventing the actions of the "worthless" dogs than they were about the possibility of worthy dogs being caught up in a move to legally limit their numbers.
[707] "Cats and Dogs" *Kentucky Farmer* (Frankfort) Vol. 1, No. 8, 1859, 122-123.

their owners would be happy to pay and "if they're worthless they may be killed."[708] Still others predicted "no other mode" could increase "agricultural wealth" as quickly as "the general slaughter of dogs, which would certainly be followed by the universal introduction of sheep on the farms of [Kentucky's] cultivated districts."[709] They based their arguments on the value of wool, which increased with superior animals that grew thicker fleeces and added to the value of the mutton on the hoof.[710] Even with this increase in relative value, agricultural reformers argued "the farmers of Kentucky to not raise one-tenth as many sheep as they ought," because even in the high, per-acre value regions like the Bluegrass "it would be found highly profitable to raise more sheep."[711]

This type of abstract calculation and prescription for the categorical destruction of "worthless" dogs might have worked in the pages of agricultural reform journals, yet in the agricultural landscape, they ran up against messy realities. For example, when the neighbors of the Todd family of Franklin County complained that the Todd's dogs had killed their sheep, it touched off a series of recriminations on the farm, as each dog owner blamed the deaths on other people's dogs. Ultimately, "Rex and Bosin," which belonged to a young man in the Todd family, paid the penalty for getting into the neighbors' sheep, even though "Jac had as much hand" in killing the ewes as the other two dogs. The difference was that Jac's owner was the person interacting with the angry neighbors and he would "tell a lie just for Jac." Rex and Boxin's owner plotted his

[708] "Sheep and Molasses" *Kentucky Farmer* Vol. 1 No. 7, 1859, 108.
[709] "Sheep Husbandry in the West" *Kentucky Farmer* Vol. 1, No. 12, 1859, 186.
[710] For mutton and wool prices see *Kentucky Farmer* Vol. 1, No. 8, 113.
[711] "Sheep Husbandry," *Kentucky Farmer* (Frankfort) Vol. 1, No. 2, 1858, 24.

revenge, writing his cousin of his plan of shoot Jac in the same letter that reported the sad demise of the other dogs.[712] The attachment both parties felt for their dogs, and their hesitance to destroy them, demonstrates a key difficulty in preventing canines from harming livestock: people loved their dogs.

Like the above domesticated quadrupeds, sheep served a number of purposes for those who raised them. Some, like frequent *Kentucky Farmer* contributor Robert Scott, sold their blooded stock to other stockmen who hoped to raise the quality of their own bloodlines, whether locally or regionally as when he sold "his 'Improved Kentucky' Sheep" at a rate of "twenty-five dollars per head" to buyers in Memphis and Louisiana in 1859.[713] More sold fleece harvested from the sheep as early as the first year and many enjoyed cuts of lamb and mutton.

Taken as a whole, the overall decline in livestock numbers reflects more of a shift toward higher value animals than a decreasing emphasis on their breeding or a decline in their importance to the overall agricultural landscape. By 1840 an observer noted there were "few, if any" stockmen left in the Bluegrass whose "stock generally subsisted 'in the range'" with "lean, bony angular pointed cows...browzing the bushes with horribly toned bells…their sheep…at large too…their hogs, if ever you could come up to them in the woods, while seeking '*mast*'…would utter their peculiar 'hugh!' and off would go" or "some 'bag of bones,' *somewhat* in the shape of an old mare…at the head of three or four…colts and yearlings, biting off the buds of the undergrowth." He went

[712] J.H. Spotts to Harry Innes Todd, April 8, 1835. Harry Inness and George Davidson Todd Papers, Kentucky Historical Society, Frankfort, Kentucky.
[713] "Sale of Blooded Stock," *Kentucky Farmer* (Frankfort) Vol. 1, No. 10, 1859, 152.

on to disparage any poor farmers who still relied on the range as "the very men who rail out so against our paying a little extra to get superior breeds of stock."[714] To many agricultural reformers and commercial farmers in the antebellum Bluegrass envisioned improvements in terms of higher quality rather than expanded quantity. The sample of Bourbon County farm-level census returns bears out this trend as the average, per farm livestock value more than doubled from $1,520 in 1850 to $3,756 by 1860.[715] The rise reflected across the board gains, rather than the accumulation of the most valuable animals by the wealthiest breeders, which might skew the figures. In 1850, more than half of those farms sampled held livestock valued under $1,000, whereas by 1860, more than nine in ten held more than $1,000 worth of domesticated stock.

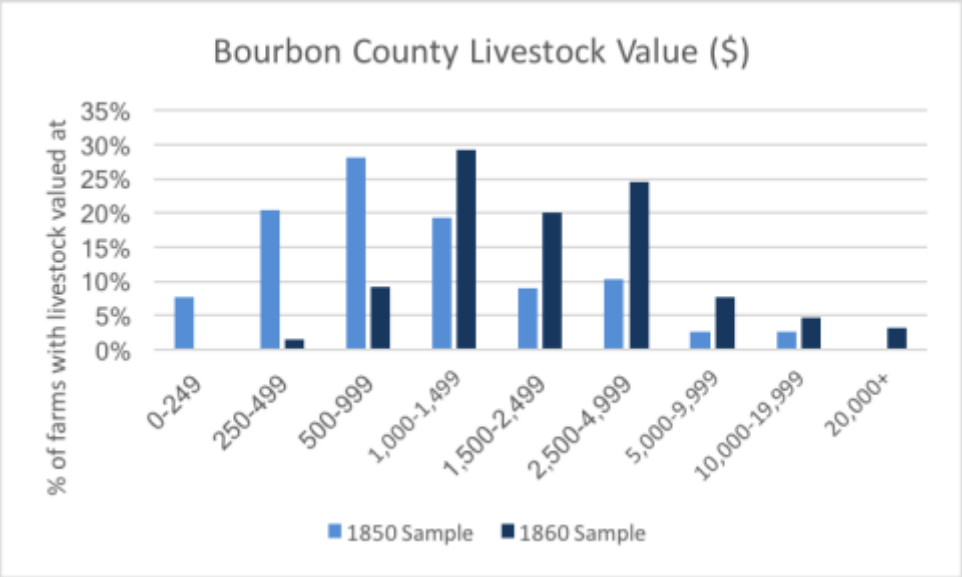

Figure 8.21 Bourbon County Livestock Value, 1850-1860

[714] "Improvement of the Soil Resulting from the Grazing System of Kentucky" Vol. 3, No. 36, May 2, 1840, 280.
[715] The 1840 Census did not report livestock values, making earlier comparisons difficult.

On the whole, the evidence suggests that the strategy of focusing primarily on the quality of the livestock, rather than the quantity, led to a more efficient system of landscape utilization. Fewer animals meant fewer demands upon the local environment, yet also allowed for greater resources to be devoted to each and the combination resulted in both the higher overall livestock values and the long-term fertility of the entire antebellum grazing system.

Like the ubiquitous and varied gardens, chickens occupied a spot on virtually every farm, though they merited little attention from census enumerators or agricultural reform journals. On many farms, chickens functioned primarily or exclusively to provide food to those living on that agricultural unit. On the farms, or plantations, of the elite, however the chickens could take on a larger role, as was the case at Ashland, Henry Clay's estate, where Lucretia's "milk and egg" income amounted to approximately $1,500 per year.[716] This was a substantial sum considering eggs cost between ten and twelve cents, per dozen, in the early 1840s.[717] Chickens, themselves, cost between twelve and a half and sixteen and two-third cents each at the same point, placing the birds within the nominal reach of most non-enslaved Kentuckians, and often among some of the enslaved.[718] In central Kentucky by the antebellum era domesticated

[716] David S. Heidler and Jeanne T. Heidler, *Henry Clay: The Essential American* Kindle Edition (New York: Random House, 2010) (Kindle Locations 9258-9260).
[717] *Franklin Farmer* (Lexington), Vol. 3, No. 42, June 13, 1840, 336.
[718] Ibid., Vol. 3, No. 47, July 18, 1840, 375.

birds became predominant over their wild cousins in what was once "the greatest country…for turkeys."[719]

Small-scale hydrological interventions undertaken by agriculturalists, such as constructing ponds or digging cisterns, formed a class of landscape features overlooked by most statistical analyses, but the large numbers of livestock in the region and the frequently irregular water supply suggest their importance. As the example of well-digger John Robert Shaw discussed in the previous section demonstrated, individual attempts to secure a steady water supply had a lengthy history in the region, so the antebellum modifications represented an extension and intensification of Kentuckians' intervention in the water cycle, rather than a new departure.[720] Yet the trend toward a preference for the appearance of greater human control can be seen in arguments that "ponds [were] preferable to creeks and rivulets, which wash away fences and require watergates" in addition to their susceptibility to drought and believed it a necessity that "every enclosure" have "water for stock in ample proportion to the amount of stock" that would ever occupy the field simultaneously. Constructing a pond entailed selecting a "sinkhole or depression in the earth" to expand with a team of horses, "a double plow and a dirt scraper," using the excavated soil to form an embankment along the lower side of the depression, and salting the bottom of the pond-to-be so that "the treading of stock" while licking up the sodium would "soon compact the soil sufficiently to make it

[719] Lucien Beckner, ed. "Reverend John D. Shane's Interview with Pioneer William Clinkenbeard" *Filson Club History Quarterly* Vol. 2, No. 3 (1928), 112.
[720] *The Narrative of the Life and Travels of John Robert Shaw* (Lexington: Daniel Bradford Press, 1807).

hold water."[721] Once established, ponds helped smooth the rough edges of the hydrological cycle for stock raisers, though extended droughts still taxed the system.

Artificial impoundments also offered ancillary benefits like the "deep and miry" organic material that laborers, often enslaved Kentuckians or Irish-Americans working for wages, dredged up when periodically cleaning the ponds. Transferred to an adjacent field, this muck became "one of the richest and most lasting manures," capable of stimulating crop production. Stockmen also frequently had "a few clumps of trees" planted near the pond to stabilize the embankments, provide "comfortable shade for the stock" and create "a pleasing and picturesque appearance."[722] Many species beyond the livestock for which these ponds were intended also likely found them to be "pleasing" spaces within the broader agricultural landscape. For example, pond builders knew to place any rock used to reinforce the pool on the inside of the structures so that "the crawfish and frogs which live in it will be able to reach the water without cutting holes through the embankment" and a range of birds from herons to ducks took advantage of the new watery niches.[723] One imagines many ponds also functioned as spaces of productive recreation, whether for girls and boys hunting crawfish and frogs, or for adults looking to supplement or add variety to their diets with a duck or a goose.[724]

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[721] "Making and Cleaning Ponds," *Kentucky Farmer*, Vol. 1, No. 2, August 1858, 29-30.
[722] Ibid.
[723] Ibid.
[724] This type of landscape use and the different meanings different slices of the local ecology held for different Kentuckians receive a more detailed exploration in chapter seven.

Reform-minded farmers founded the Bourbon County Agricultural Society in 1836, pledging the organization's commitment to "the improvement of Stock, Agriculture, and Domestic Manufactures."[725] It tapped into a common impulse throughout the state and societies sprang up on the county level throughout the Bluegrass. The larger Kentucky Association for the Improvement of Breeds of Stock, based in Lexington, got its start in 1828 and catered to Bluegrass farmers and breeders, though it attracted people from across the state and region. These organizations held annual fairs that included a wide range of competitions geared toward identifying and rewarding the "best" agricultural and domestic produce the region could offer.[726] The competition typically remained friendly, but reformers intended it to accomplish substantial benefits for the agricultural system by facilitating the transfer of knowledge about best practices and even of genetic material as stock sales and stud agreements often accompanied the fairs.[727] By-laws like that of the Bourbon County society requiring each entry in the categories "milk cow, bull, jack, jennet, or brood-mare, or stallion" to have "proven itself a breeder" emphasize the importance of genetic potential in these competitions.[728]

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[725] *Constitution and By-laws of the Bourbon County Agricultural Society. Adopted July 30th 1836.* (Morton & Griswold, Louisville, 1851), Article II, 3.
[726] These fairs will be discussed more fully in chapter seven on the experiential landscapes of the Inner Bluegrass.
[727] Andrew Patrick, "Inner Bluegrass Agriculture," see chapter four "The Georgic Ethic, Voluntary Organizations and Inner Bluegrass Agriculture."
[728] *Constitution and By-laws of the Bourbon County Agricultural Society. Adopted July 30th 1836.* (Morton & Griswold, Louisville, 1851), Section XVIII, 12.

While such groups met infrequently throughout the year, their influence, particularly though the diffusion of knowledge and the effects of competition, helped nudge the overall composition of Bluegrass livestock in the direction of higher per animal values due to improvements in cultivating favored characteristics, such as the ability to quickly put on weight in hogs or an aptitude for careful plowing in mules. County agricultural societies only formed a conspicuous aspect of the physical landscape for a single weekend each fall, yet the discerning eye might spot their influence all year, from the care lavished on prized specimens of racing or breeding stock by enslaved Kentuckians on the orders of prosperous planters to the careful rotting, breaking, and processing of hemp intended to compete for the title of "best" hemp.[729] These secondary effects led one historian of antebellum Kentucky agriculture to conclude that "nothing did more than these fairs and agricultural societies to improve Bluegrass stock and crops."[730]

While this assertion risks overstating the role played by agricultural reform societies, a close examination of a sample of the original, farm-level census returns from 1850 and 1860 in Bourbon County reveals a maturing agricultural system, subject to the varied demands of diverse farmers. This on-the-ground view agrees with the overall

[729] Societies offered premiums for a wide range of categories; the Bourbon County society, for example, held annual competitions for "the best standing hemp, hemp prepared by water-rotting and dew-rotting methods, hemp seed, articles made of hemp and hemp breaks." Elizabeth Ritter Clotfelter, *The Agricultural History of Bourbon County, Kentucky Prior to 1900*. MA Thesis, University of Kentucky, 1953, 82.
[730] Richard Laverne Troutman, *Plantation Life in the Ante-Bellum Bluegrass Region of Kentucky*. MA Thesis, University of Kentucky, 1955, 30. Troutman also claimed nothing did more "to elevate farmers themselves," a point that is explored and elaborated upon in chapter seven.

regional statistics and the descriptions of contemporary observers. Taken together, the decisions of the white men who directed the agroecosystem created a diverse landscape that shifted according to seasonal patterns, crop rotations and fluctuating market incentives. Travelers remarked on "the most pleasurable emotions" experienced in the Bluegrass landscape, claiming it was "hardly possible to image any thing more beautiful, than the alternations of woodland and meadow, with hemp and cornfields, and orchards, which the eye here meets in every direction."[731] Yet some Kentuckians continued to try to improve their agroecosystem, particularly by strengthening its connections to other sectors of the antebellum American economy via new transportation technologies and expanded agro-industrial enterprises, while many others could very easily image something "more beautiful" than the current system in which the fruits of their labor were expropriated by their enslavers.

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[731] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 64-66.

Chapter Nine: Avenues and Engines of Agroecological Change

An antebellum visitor to the Bluegrass remarked that the refined state of local agriculture suggested "the magic influence of gold, and the energy of a superior industry, had converted the face of the land from a desert to a paradise." The rural landscape he described as "remarkably beautiful," "productive" and sure to fill "a genuine admirer of nature with the most pleasurable emotions" took shape in tandem with an evolving transportation infrastructure and expanding commercial economy. Both economic sectors engaged substantial portions of regional "gold" and "industry" to modify the local environment.[732] Transportation changes included road improvements, river control projects, the spread of steamboats, and the arrival of railroads while the quickening pace of commerce that encompassed merchants, manufacturers and farmer-consumers served as an engine driving agricultural production.[733] Both transportation and commercial infrastructure continued to occupy minute slivers of the physical Bluegrass landscape, yet they held outsized significance for the composition of the entire agroecosystem. To the commercially minded farmers of the region, changes in either variable could force a reappraisal of the complex calculus that governed landuse

[732] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 64-67.

[733] A contemporary dictionary available in Lexington around the turn of the nineteenth century defined "engine" as "any mechanical complication, in which various movements and parts concur to one effect," which perfectly captures the roles of individual machines like the hemp brake in the Bluegrass agricultural system. Yet the entry went on to list alternate definitions including "any means to bring to pass" and "an agent for another." Applying this broader definition encompasses the relationship between transportation, commerce and the Bluegrass agricultural landscape as changes in one brought about changes in the others. Thomas Sheridan, *A Complete Dictionary of the English Language…Third Edition, in Two Volumes* (London: Charles Dilly, 1790).

choices. Falling transportation costs could favor a shift toward bulkier commodities, or rising prices linked to local industrial demand could incline planters to have more acres sown in hemp. The quickening pace of commerce in the Bluegrass influenced the ways residents viewed and used their slice of the landscape. Further, agricultural interests lay near the heart of virtually every justification for a proposed internal improvement and factored heavily into the prospects for every commercial or industrial venture.[734] Recognizing these connections allows for a more holistic view of the incentives shaping both the physical landscape and the lives of those who inhabited it.

Moving through the Landscape

By 1829, elite central Kentuckians believed the need for "improved roads…[was] so palpable that the most ignorant" residents had come to recognize it.[735] Condescension aside, Henry Clay, Jr.'s remark spoke to a reality of the early antebellum Bluegrass agroecosystem: the continued difficulty and cost of transporting goods to market remained a significant obstacle to agricultural success for everyone involved. Changes in transportation technologies and networks were financed and implemented on the grounds of the economic benefits they promised to bring to the agricultural population and contributed to the crop and livestock changes during these decades. Advances in mobility depended on improvements and inventions ranging from macadamized roads and better wagons to steamboats and railroads, yet focusing solely

[734] Exactly whose "agricultural interests" were served and how effectively, however, is a more complicated question as we shall see in the following chapter.
[735] Henry Clay Jr. to Henry Clay Sr., October 24, 1829, Robert Seager II, ed., *The Papers of Henry Clay vol. 8 Candidate, Compromiser, Whig, March 5, 1829-December 31, 1836* (Lexington: University Press of Kentucky, 1984), 117-118.

on their novelty obscures the long-held outlooks and incentives that gave rise to them. Kentuckians enthusiastically embraced more efficient connections in order to profit from lower transport costs; internal improvements and technological innovations sought to overcome, or at least reduce, the obstacles to agricultural prosperity imposed by geography and thus can best be viewed as opposite sides of the same coin. Antebellum Bluegrass farmers, like their predecessors, believed their agricultural and economic success depended on their market access and necessitated active modification of the physical and political landscape to secure it. The evolution of the transportation landscapes of central Kentucky held profound implications for both the broader material world in which they were embedded and for the people who inhabited them.

As in earlier decades, the lure of distant buyers and a desire for expanded profits pulled central Kentucky farmers and merchants into economic relationships with a range of Americans and Europeans. The improved transportation options available over the course of the era, however, allowed these relationships to take on expanded importance to all parties. The antebellum connections between the Bluegrass and the cotton South illustrate this trend.[736] As the lower South focused ever more of their productive land and labor on cotton production for international markets, it created an economic opening for Kentucky farmers to supply grain to feed the enslaved laborers who cultivated the southern fiber. The state's wheat provided calories that enslaved

[736] Thomas D. Clark, "The Trade Between Kentucky and the Cotton Kingdom in Livestock, Hemp, and Slaves from 1840 to 1860," MA Thesis, 1929.

Louisianans, Mississippians and Alabamans converted into the energy that, in turn, allowed them to continue producing the cotton that drove much of the antebellum export economy.[737] Bluegrass mules, including those bred in Bourbon County discussed above, often traveled the improved antebellum transportation avenues to southern markets before spending their productive lives in cotton fields, plowing in tighter confines than horses could without stomping the plants.[738] Hemp, too, formed a strong connection linking the Bluegrass to the cotton South and thence to the broader Atlantic World.[739] Yet, these southern examples should not overshadow the simultaneous expansion of commerce between central Kentucky and places such as Cincinnati, Ohio, Pittsburgh, Pennsylvania, St. Louis, Missouri and Terra Haute, Indiana, that was also facilitated by the same transportation advances.[740]

One important note of caution: "modern" or improved transportation during this period did not replace "traditional" modes of moving people and things from place to place. Rather, they served as complementary aspects of a mixed system. While a train might whisk bushels of wheat from Lexington to Frankfort at unprecedented speeds, its permanent rails meant it could not travel to the farms where most of the wheat was grown.[741] Instead, farmers or merchants arranged for traditional technologies, such as

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[737] Diane L. Lindstrom, "Southern Dependence Upon Inter-regional Grain Supplies: A Review of the Trade Flows, 1840-1860," *Agricultural History* 44 no 1 (1970): 101-113.
[738] Thomas D. Clark, "Live Stock Trade between Kentucky and the South, 1840-1860" *Register of the Kentucky Historical Society*, Vol. 27, No. 81, 1929, 569-581.
[739] Ibid.
[740] *Louisville Public Advertiser*, February 23, 1830, 3.
[741] While those farms directly adjacent to the tracks might enjoy greater access than their more distant neighbors, these were relatively few given the small number of rail lines in the state.

horses, wagons and carts, to get their produce to the nodes of the modern transportation network. Much as the focus on celebrated "blooded" stock can obscure the less prominent animals of the Bluegrass, emphasizing novel modes of transportation runs the risk of overlooking the continued, or even expanded, importance of traditional approaches to mobility given the quickening pace of commercial life during the period. While the growing importance of fossil fuels for transportation must be incorporated into any view of the antebellum central Kentucky landscape, it cannot overshadow the vital animating roles of metabolic and hydrologic power.

With this important caveat in mind, the elaboration of transportation networks linking the region to the rest of the state, nation, and Atlantic World nonetheless held tremendous implications for the central Kentucky landscape. As we have seen, securing and easing routes to distant markets figured prominently in many white Kentuckians' worldview stretching back to the eighteenth century, but this impulse took on new forms during the middle third of the nineteenth. Instead of debating the finer points of international affairs or challenging restrictions on trade on the Mississippi, residents turned their attention to innovations aimed at facilitating more efficient transportation, whether local, regional, or national. Proponents of improvement focused much of their early effort on the wretched state of roads.

Many regional roads, including important routes such as the Wilderness Road through the Cumberland Gap, and the Maysville Road linking the Bluegrass to the Ohio River, began their existence as buffalo traces and subsequently eased the passage of

human travelers as well.[742] While these former game trails allowed the increasing flow of settlers to reach Kentucky during the late eighteenth and early nineteenth centuries, they left a lot to be desired. Often little more than narrow ruts cutting across the countryside, the ease of passage along these routes varied wildly based on the changing seasons, weather conditions, and method of transportation. Virtually all Kentuckians walked from place to place, at least occasionally. Many rode horses. Some drove horse-drawn carts, wagons or carriages. There were benefits and drawbacks to each mode of ground transportation, most of which remain familiar today. Yet they influenced antebellum Kentuckians' lives far more often than those who lived after the advent of asphalt and concrete sidewalks. Rain turned dirt roads into veritable quagmires, making foot travel difficult and filthy, yet mud often proved an even greater obstacle to wheeled transportation that was liable to get stuck in the muck. Winter weather often rendered roads virtually impassable. The snow, sleet, and ice that blanketed the landscape for days or weeks during the winter months turned even relatively well-maintained into dirt roads into frozen, slippery routes to be travelled at one's personal hazard. Extended dry weather, on the other hand, turned dirt roads into dusty winding tracks across the countryside, easier to traverse but still leaving most travelers dirty and exhausted.

Like Americans of all stripes, by the 1820s and 1830s many Kentuckians clearly identified the state's road network as sorely in need of improvement in order to

[742] J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Lexington: University Press of Kentucky, 1995), 17.

"promote the prosperity" and "enhance the value of property" in the region.[743] Transportation of many items remained prohibitively expensive as the cost of moving bulky goods to a river port at Maysville or Louisville from the Inner Bluegrass could exceed their selling price and transporting freight from the east coast to Maysville often equaled the cost of moving the same goods from Maysville to Lexington.[744] Settlers and travelers in the Bluegrass had complained for decades, for example Henry Clay remarked in 1829 that "no Kentuckian…could behold the wretched condition of our roads, without the deepest mortification."[745] These types of complaints stemmed from the physical characteristics of the roads, especially of dirt. One traveler argued that the "clayey character of the soil in all the fertile districts made unmacadamized roads impassable to any heavy traffic during half the year."[746] Macadamized or "artificial" roads, in contrast, stood up to heavy vehicles and inclement weather due to their superior construction.[747] Named for the Scottish engineer who pioneered the approach,

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[743] Henry Clay to Nicholas Biddle, November 28, 1829, *The Papers of Henry Clay. Volume 8, Candidate, Compromiser, Whig, 1829-1836* (Lexington: University of Kentucky Press, 1984), 129.

[744] Turner W. Allen, "The Turnpike System in Kentucky: A Review of State Road Policy in the Nineteenth Century" *Filson Club History Quarterly*, Vol. 28, 1954, 244.

[745] "Fowler's Garden Speech" Lexington, May 16, 1829, Henry Clay, *The Papers of Henry Clay. Volume 8, Candidate, Compromiser, Whig, 1829-1836* (Lexington: University of Kentucky Press, 1984), 53.

[746] Nathaniel S. Shaler, *Kentucky: A Pioneer Commonwealth* (Boston: Houghton, Mifflin & Co., 1885), 188-189.

[747] In the Bluegrass, this construction and especially maintenance often relied upon the labor of enslaved Kentuckians, frequently rented out for the purpose. This pattern characterized virtually every aspect of the evolving transportation system, as we shall see. James P. Murray rented "hands" to work on the "Frankfort & Versailles Turnpike" from J.D. Rake, February 14, 1838, Murray Family Papers, 1806-1899, MSS 35, Kentucky Historical Society, Frankfort, Kentucky.

John Loudon McAdam, macadamized roads utilized crushed stones laid in a well-drained and graded road bed to form a permeable, yet durable surface. Roads constructed according to this technique measured between thirty and fifty feet across, with center beds of crushed stone ten inches deep and they could be maintained largely by filling spots worn thin by traffic.[748] Materially, these roads differed dramatically from the dirt tracks they replaced. While promoters of the improved roads initially lamented the "very languid…if not extinct" level of "public spirit" on the topic, they remained confident that once they brought "the advantages of roads finished in the McAdams method home to the senses of our fellow Citizens" it would spark enthusiasm and a flurry of road building.[749] The arrival of the macadamization technique gave new impetus to road improvement efforts and eventually typified the best roads constructed in antebellum Kentucky.[750]

To the commercially attuned agriculturalists of the region, establishing more efficient connections seemed a clear method of improving their economic prospects. They hoped to transform their roads from seasonally "impassable" into year-round "commodious channels of trade."[751] One visitor in 1829 believed that if central Kentuckians hoped to "prosper" or even just "hold what improvements they have

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[748] Turner W. Allen, "The Turnpike System in Kentucky: A Review of State Road Policy in the Nineteenth Century" *Filson Club History Quarterly*, Vol. 28, 1954, 249.
[749] Henry Clay to Andrew M. January & William Huston, Jr., November 29, 1829, *The Papers of Henry Clay. Volume 8, Candidate, Compromiser, Whig, 1829-1836* (Lexington: University of Kentucky Press, 1984), 122-123.
[750] J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Lexington: University Press of Kentucky, 1995), 234-236.
[751] *Frankfort Commonwealth* March 31, 1835.

gained, the road must be turnpiked" and replaced by a durable hard surface.[752] Often these improvements focused on easing passage to the regional waterways that served as the primary arteries of trade. Henry Clay's proposed extension of the National Road is a well-known example that displayed many of the impulses and incentives that drove smaller-scale improvements to the state's transportation infrastructure. Clay argued that extending the under-construction Cumberland Road, which connected the Potomac River to the Ohio, from Maysville south to Lexington would serve "great National purposes," despite the entirety of the route lying in Kentucky. Clay also envisioned subsequent extensions to take the National Road "through Kentucky and Tennessee to the Gulf of Mexico" and predicted these additions would build upon the Road's earlier success as a "Bond of Union" to "connect…the two great sections of our country," by which he meant the east and west. Clay believed the same unifying impulse could be activated by easing the difficulty of travel and commerce between the North and South and viewed Kentucky as geographically central to the effort.[753]

In order to put the weight of the national government behind the project and secure vital capital, Kentuckians like Richard M. Johnson and Nicholas D. Coleman guided a bill through Congress "authorizing a subscription of stock in the Maysville, Washington, Paris, and Lexington Turnpike Road Company" totaling "fifteen hundred

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[752] Draper MSS, 17CC90-91 cited in J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Lexington: University Press of Kentucky, 1995), 232-233.
[753] "Speech at Wheeling, Va." March 31, 1829, Henry Clay, *The Papers of Henry Clay. Volume 8, Candidate, Compromiser, Whig, 1829-1836* (Lexington: University of Kentucky Press, 1984), 20.

shares," or half the company.[754] They argued that the road did not "promise exclusive advantage to Kentucky," but would benefit "the interests of Ohio, and all the States situated west," particularly by stimulating greater trade with New Orleans.[755] The Kentuckians justified their position largely in terms of the importance of the connections between their rich agricultural region and other sections of the country; Johnson argued they "inhabit[ed] a fertile region-- a fair and delightful habitation for man; [yet] it is surrounded not with water, but land, land in all directions, and to a vast extent. The pleasant Ohio rolls along its borders, bearing on its bosom the wealth of ten States" and Kentucky simply "wish[ed] to get at this great national highway, that we may carry the products of our industry to a market." After all, Johnson maintained "roads and canals were strong links in the chain of affection which bound this Union together as a band of brothers, and made our fellow-citizens rich, and happy, and independent."[756] Yet President Andrew Jackson vehemently disagreed with the idea that a road "exclusively within the limits of a [single] State, starting at a point on the Ohio River and running out 60 miles to an interior town" could possibly qualify as a "national" improvement project. Jackson vetoed the appropriation on the grounds that the road was "of purely local character."[757]

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[754] H.R. 285. "A Bill Authorizing a subscription of stock in the Maysville, Washington, Paris, and Lexington Turnpike Road Company" 21st Congress, 1st Session, February 24, 1830. On the debate in Congress, including the 3,000 total shares, see *Gales & Seaton's Register* "Maysville Road Bill" April 27, 1830, 828-829.
[755] *Gales & Seaton's Register* "Maysville Road Bill" April 28, 1830, 828-829.
[756] Richard M. Johnson *Gales & Seaton's Register* "Maysville Road Bill" April 28, 1830, 840-841.
[757] Andrew Jackson, Veto Message Regarding Funding of Infrastructure Development (May 27, 1830) <http://millercenter.org/president/jackson/speeches/veto-message-

From an agroecological perspective, the Maysville Road impasse suggests a couple of interpretations. First, that central Kentuckians identified a likely avenue to secure capital funding to enhance the value of their own agricultural operations by lowering transportation costs. Second, and not mutually exclusive from the first, that Kentuckians recognized the interdependencies between their own agriculture and industry and that of the broader nation; namely, they recognized that their success depended on the success of those who bought their flour and rope and those who produced and sold them agricultural implements. Jackson and the Kentuckians differed in their views of who should finance these types of projects in part because they held different ideas about the scope of the connections created by antebellum agricultural and economic systems. Jackson viewed them as local concerns, with largely local benefits and interests, whereas the Kentuckians framed their agricultural economy as enmeshed in a web of relationships in which distant parties stood to benefit from local improvements. In either view, the failed attempt to secure national funding for the Maysville Road represented only one battle in the larger campaign to modernize the transportation infrastructure of the antebellum Bluegrass, with all the environmental implications that the changes entailed.[758]

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regarding-funding-of-infrastructure-development > (accessed November 15, 2016). Jackson's rejection of the Maysville Road funding reflected his broader belief that internal improvements should be a local or state issue. He prefaced his veto message with a lengthy exposition on the ways his predecessors had misinterpreted the Constitution in order to fund improvement projects.

[758] For more on the ecological landscapes of the Maysville Road see Craig Thompson Friend "'Fond Illusions' and Environmental Transformation Along the Maysville-Lexington Road" *The Register of the Kentucky Historical Society* Vol. 94 No. 1 (1996), 4-32.

In fact, this notable showdown over funding internal improvements had roots in an on-going movement to establish turnpike companies to build and manage portions of the road network. Before the question burst onto the national consciousness, Kentucky had chartered a number of turnpike companies, including the Washington, Paris and Lexington, which proponents believed would invigorate the commerce and agriculture of the Bluegrass. Ultimately state and local funding financed the improvements to the Maysville Road denied by Jackson's veto and the "improved" route opened with thirteen tollgates in 1835.[759] Throughout the antebellum period, Kentuckians believed "the want of a fair transportation to market" limited the agricultural prosperity of the region more than any factor related to soil, crops or climate.[760] This belief stimulated a number of interrelated responses and the Maysville Road was only one component of the broader transportation network.

By the end of the 1830s, in fact, Lexington boasted "seven turnpike roads…terminating at [the] City" and "def[ied] the earth to exceed us in the variety and pleasantness of the travel" out from the hub of the Bluegrass.[761] Macadamizing these turnpikes required large labor and capital inputs, which came from a variety of sources. Individual investors bought shares in incorporated turnpikes, hoping to profit from the tolls collected in addition to underwriting improved transportation for the community. Similarly, different branches of the local and state government also contributed to

[759] Turner W. Allen, "The Turnpike System in Kentucky," 246.
[760] "Have We Too Many Farmers?," *Kentucky Farmer* (Frankfort) Vol. 1, No. 1, July 1858, 4.
[761] *Kentucky Gazette*, April 4, 1839, 2.

turnpike construction. For example, the Fayette County Court subscribed a total of thirty-eight thousand dollars to the seven turnpikes that terminated in the city by 1839 and the state appropriated more than two million dollars toward turnpike corporations by 1849, a large fraction of which went to roads that traversed the Inner Bluegrass.[762]

Mcadamized turnpikes contributed to a subtle reorganization of the overland transportation landscape, effectively "shrinking" the distance between the region and the rest of the nation since trips like that from Lexington to Cincinnati that took at least two days during the 1820s only took twelve hours a decade later.[763] Livestock and crops traveled the same road system, and farmers paid for the access in proportion to the wear animals, carts and wagons caused to the turnpike.[764] During the antebellum era, a large portion of Bluegrass livestock traveled turnpikes on their way to sale, though typically only part of the way since dirt tracks still composed the majority of small roads. Since macamadization came to primary routes first, many animals walked out of the region on improved roads, driven by drovers to a variety of markets, whether for sale to

[762] A total of 310 miles of completed turnpikes by 1849 connected to Lexington, which represented 40 percent of the turnpikes in the state and the state had invested almost $900,000 in their construction, which represented more than 33 percent of total state investment in improved roads. Much of the rest of the mileage connected Louisville to other parts of the state and points south, including from Frankfort to Louisville, which also benefited Inner Bluegrass farmers. Turner W. Allen, "The Turnpike System in Kentucky," 248.

[763] J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Lexington: University Press of Kentucky, 1995), 235-236.

[764] Turner W. Allen, "The Turnpike System in Kentucky," 243. For example, the rates for hogs and sheep were only half those for cattle due to their greater weight and wear on the roadbed.

pork processors in Cincinnati or merchants in South Carolina.[765] Some entrepreneurial farmers alongside the busy roads catered to this regular traffic as when F.C. McLear advertised his "Regular Stock Stand—4 Miles South of Lexington" as ideally suited for "drovers going South with mules or horses" with "good stock water and…new troughs" to feed "200 or 300 mules or horses" for "10 to 12" cents per meal.[766] By cutting travel times, turnpikes promised to reduce the toll the trek to market took on their stock and thereby increase their final value.[767]

Yet many of the turnpikes struggled to overcome financial difficulties, even along heavily-traveled routes. Despite their added utility, operators found travelers reluctant to pay sufficient tolls to repay the costs of construction, maintain them in top shape, and yield the return on investment expected by stockholders. Blithe assurances that busy roads meant "the stock of [the] company must be good," sure to "yield six or eight per cent. clear of all contingent and current expenses for repair," often failed to materialize.[768] While fee schedules like, two to five cents per horse, depending on the width of the wheels on the vehicle, seemed reasonable to turnpike company boards of directors, they often seemed exorbitant to small farmers, wage laborers and other cash-strapped Kentuckians. Frugal travelers learned to avoid tolls, "shunning the pike" by going cross-country around toll stations in order to avoid paying for their use of the

[765] James Hedges and John Hedges to William Hedges, January 23, 1844, "William L. Hedges papers, 1835-1850" SC 126, Kentucky Historical Society, Frankfort Kentucky.
[766] *Kentucky Gazette*, July 6, 1856.
[767] Shorter travel times also promised to limit the cost of contracting with a drover to dive a farmers' stock to market since the trips took less time. Yet the tolls charged on turnpikes at least partially ate into these savings.
[768] *Gales & Seaton's Register* "Maysville Road Bill" April 28, 1830, 829.

superior roadway.[769] Beyond local reluctance to pay tolls, financial mismanagement, unrealistic revenue expectations, and unforeseen maintenance costs contributed to the uncertainty of private turnpike companies.

The spread of turnpikes and macadamized roads coincided with the peak of the stagecoach industry in the Bluegrass. The stagecoaches ran regular services between a number of Kentucky towns, connecting people from Lexington to places like Maysville or Frankfort with increasing speed during the antebellum decades as artificial roads spread along main routes. The coaches typically averaged between four and eight miles per hour and often carried mail and merchandise in addition to their passengers.[770] While relatively tangential to the physical movement of most agricultural products, the role stagecoaches played in moving people and information rapidly across the countryside contributed to the quickened pace of commerce and the tolls they paid helped to finance the improved roads that waggoneers, drovers, and livestock traveled on their way to market.

The regional road system by the late antebellum period mixed these improved, capital-intensive routes and companies with the traditional, vernacular roads developed over the decades since Euro-American settlement. While the most heavily-traveled roads like the Maysville Road, which saw average daily traffic of over three hundred people, four hundred horses, nearly one hundred wheeled vehicles in the late 1820s,

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[769] Karl Raitz and Nancy O'Malley, *Kentucky's Frontier Highway: Historical Landscape along the Maysville Road* (Lexington: University Press of Kentucky, 2012), 67.
[770] J. Winston Coleman Jr., *Stage-Coach Days in the Bluegrass* (Lexington: University Press of Kentucky, 1995), 175-176.

underwent physical transformations that eased expanded flows of people and goods, the vast majority of roads remained simple dirt paths, used primarily by a few local residents and maintained on the county-level via residential labor.[771] The Bluegrass agroecosystem utilized both.

As most of the road networks in Kentucky terminated at a river port, ground transportation remained closely linked to water-based transport. The steamboats that first plied the western waters during the 1810s took on increasing importance as technological improvements allowed greater numbers of more efficient boats to carry more cargo up and down the river system. Long frustrated by the inadequacies of the local waterways as commercial corridors, many Bluegrass residents eagerly embraced the arrival of steamboats. The innovative machines offered relative freedom from the regional water cycle, allowing people, goods, and information to move independently of hydrological patterns. The organization of "packet" lines that operated on a fixed schedule between two river ports added a level of regularity and predictability to river transportation that Kentuckians had never before enjoyed and competition between operators helped keep down consumer prices.[772] The powerful boats also represented

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[771] Nicholas D. Coleman, *Gales & Seaton's Register* "Maysville Road Bill" April 28, 1830, 829; Karl Raitz and Nancy O'Malley, "Local-scale turnpike roads in nineteenth-century Kentucky" *Journal of Historical Geography* 2007, Vol. 33, 1-23; Turner W. Allen, "The Turnpike System in Kentucky," 240.

[772] For example, in 1830 the proprietors of a line advertised that the "new Steam boats, SLYPH and FRANKFORT PACKET, will ply regularly between" Frankfort and Louisville, but they had competition from the "steamer PLANET" and others on the same route who committed to "continue in the trade so long as the water in the Kentucky River may permit." "Regular packet to FRANKFORT" and "Louisville & Frankfort Steam boat line," *Louisville Public Advertiser,* February 23, 1830, 3.

something of a new means of interacting with the landscape, more reliant on technology and less embedded in the physical abilities of living organisms.[773] Of course, the new technology did impose physical demands for their operation, including construction, fuel, and maintenance, much of which was supplied locally via the labor of enslaved Kentuckians.[774]

Bills of lading demonstrate the wide range of Bluegrass agricultural products moving along western rivers on the new boats; for example, in 1847 the "Medium" operated between Frankfort and Cincinnati and transported items including hemp, lumber, sausage, dried beef, soap, lard, fish, wool, wheat and corn to merchants in the Ohio city. On return journeys the boat brought articles such as plows, scales, bar lead, nails, casks, barrels, kegs, tobacco, coffee, tea, sugar, cheese, molasses, rice, pepper, spices, dyes, yarn, starch, salt petre, gun powder, shot, medicine, bonnets, reams of paper, books, clocks, cookware, and assorted dry goods down the Ohio and Kentucky into the Bluegrass.[775] While the "Medium" typically plied the waters between Frankfort

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[773] Of course, the construction, operation and maintenance of these new technologies continued to rely on the labor of living organisms, from the men who built the engines and those who provided fuel to run them all the way back to the prehistoric plants that time and geologic processes had converted into coal. The difference was that this reliance seemed to be one step removed from the earlier direct reliance on human and animal power as when rowing a keel boat or riding a horse.

[774] Enslaved Kentuckians, and their free black counterparts, often served as "firemen" stoking the engines aboard the steamboats, sometimes harvested wood that their enslavers or renters sold to steamboat captains, and occasionally performed maintenance on the engines. E.L. Martin to Harry Innes Todd, May 25, 1837, Harry Innes Todd and George Davidson Todd Papers, MSS 5, Kentucky Historical Society, Frankfort, Kentucky; J. Winston Coleman Jr. "Kentucky River Steamboats" *The Register of the Kentucky Historical Society* Vol. 63, No. 4 (1965), 299-322.

[775] Steamboats, Bills of Lading, 1824-1847, SC 282. "Medium" Bills of Lading, May 14, 15, 19, 21, 26, 29, June 2, 4, 25, 1847. Kentucky Historical Society, Frankfort, Kentucky.

and Cincinnati, it also traded in other Ohio River towns such as Madison, Indiana and Pittsburgh, Pennsylvania, and at ports on the Kentucky River, like Monday's Landing in Woodford County. This inter-regional cycle of trade helped to connect the Bluegrass farmers to the tier of states to their north.[776] The new boats also eased the connections with New Orleans and the Lower Mississippi Valley, cutting transport times significantly, especially operating against the current. By the antebellum era, steamboats accommodated live cargo on their southern trips, such as the high-value horses and mules destined for Louisiana on the "Hibernia" in 1830.[777] Even for Bluegrass agricultural products that did not typically travel on steamboats during the antebellum era due to their bulky physical dimensions, like common livestock, the transportation innovation nonetheless influenced the calculations of farmers. For instance, steam power effectively eliminated the walk back from southern markets that was formerly necessary for drovers, but could now be accomplished in a fraction of the time aboard one of the new boats. Steamboats promised to knit Kentucky more closely, and with greater regularity, to the rest of the nation.

Yet, the arrival of a new feature in the transportation infrastructure should not obscure the elaboration of older aspects of the system. Small ferries, for example, continued to play a major role in the local mobility of Kentuckians due to the necessity

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[776] Steamboats, Bills of Lading, 1824-1847, SC 282. "Medium" Bills of Lading, May 19, 28, August 6, 1847. The bill of lading from Pittsburgh suggests a similar diversity in the trade with that city; the "Medium" carried sponges, paper, cucumbers, cabbage, beets, onions, gall oil, sage and savory, mustard, rice, imported tea, corn, potatoes, cabbage, tomatoes, butter, eggs, chickens, vinegar, candles, lemon juice, mackerel, apples and sugar.

[777] "For New-Orleans," *Louisville Public Advertiser,* February 23, 1830, 3.

of crossing the many streams, creeks and rivers that dissected the landscape. The Benson ferry in Franklin County provides a compelling illustration. Owned and operated by Henry Murray, the ferry shuttled people and goods across Benson Creek, a tributary to the Kentucky, that drained the area to the west and south of Frankfort during the 1840s. Passengers and cargo appear to have kept the ferry busy much of the year. Rates varied from twelve and a half cents for a single person on foot, to fifty cents to cross the creek in a large wheeled vehicle.[778] While seemingly modest fees, they could add up, as they must have for Jonathan Davidson who crossed with 229 wagon loads of goods during January 1844 alone.[779] These types of local trips were essential to move agricultural goods to market, whether a dozen miles to the county seat or a thousand miles to New Orleans. While steamboats consumed far more column inches in contemporary agricultural journals and subsequent histories, ferries and small craft continued to form key components of the Bluegrass transportation landscape.

The ever-growing steamboats imposed new requirements on the waterways on which they traveled. They had deeper drafts than most flat boats of the earlier era and needed deeper channels through which to pass. They also represented far greater levels of capital investment, meaning the stakes for failure far exceeded those for wrecking a small, hastily constructed wooden craft. The perceived need to make western rivers safe for steamboats led to massive landscape modifications and attempts to assert greater

[778] A.P. Cox account to Benson Ferry, January 1845; C. G. Graham account to the Benson Ferry, March 1844, Murray Family Papers, 1806-1899, Kentucky Historical Society, MSS 35.
[779] Jonathan Davidson to Henry H. Murray Benson Ferry, Murray Family Papers, 1806-1899, Kentucky Historical Society, MSS 35.

human control over aspects of the hydrological cycle. In their broad scope, these projects differed from small scale changes directed by individuals or small groups of neighbors to improve their local transportation by clearing obstacles out branches of creeks or by establishing ferries to move people and goods across streams. Undertakings like cleaning out the Kentucky River and establishing a system of locks and dams to create slackwater that could be navigated for the majority of the year regardless of precipitation required large investments that exceeded the resources individuals could muster and led to calls for state support.[780] The legislature proved susceptible to the calls, appropriating $1,000,000 to the effort to tame the lower Kentucky River with five new dams.[781] Like much of the most difficult, dirty and dangerous labor in the Bluegrass economy, work to clear the channel and build or maintain locks often fell to enslaved Kentuckians, frequently those whose legal owners rented them out for that purpose. For example, Robert Brauner of Franklin County received "eighteen dollars & twenty eight cents" for "the Hire of [his] Black boys whilst chopping for the Lock" during the antebellum flurry of improvements to the Kentucky River.[782] The mixed results did not transform the river into a calm canal, but it did

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[780] Charles H. Bogart and William M. Ambrose, *Kentucky River Packets: Steamboats, Packetboats and Towboats on the Kentucky River* (Frankfort, KY: Yellow Sparks Press, 2013), 1.

[781] *Observer and Reporter* (Lexington), April 26, 1846.

[782] John Swingle Memo, Murray Family Papers, 1806-1899, Kentucky Historical Society, MSS 35, Folder 3, September 13, 1841. This seems to have been in keeping with Brauner's overall economic strategy as he, and by extension those he enslaved, appeared frequently in Henry Murray's financial papers, typically regarding slave rentals and often for work improving the transportation network. Brauner's emphasis on income from slave rentals and the labor power of enslaved bodies is also suggested by the demographic profile of his holdings: sixteen total enslaved Kentuckians, three men

improve the navigability of the Kentucky significantly compared to the beginning of the nineteenth century.[783]

Perhaps the most notable human intervention in regional hydrology during this era occurred at the Falls of the Ohio, near modern-day Louisville. The Falls, a shallow and narrow section of the river, complicated or prevented river travel for much of the year and posed a significant threat to life and property. Before the end of the eighteenth century, observers clearly recognized the significance of the Falls, with a promoter arguing that the "inconvenience" would "very easily be removed by cutting a canal from…the upper side of the Rapids, to below the lower reef of rocks."[784] Later travelers took a slightly less sanguine view as when English visitor Thomas Ashe described the passage as a series of "rapids [that] descend about thirty feet in the length of a mile and a half" and "a ledge of rocks which extended quite across the river" making "the passage…highly dangerous" even for small boats in the best of conditions. He recalled that "the roaring of the falls…reached" him "at the distance of fifteen miles" above Louisville and the current soon carried him to "a fine view of the town…about two miles above the falls on the Kentucky shore." He mused that the "entire *coup d'oeil*

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between 30 and 44, eight men between 18 and 23, one 20-year-old woman and four children under 10. Coupled with the frequency with which "Brauner's Black boys" were rented out to work on things like river locks and railroad maintenance, the skewed gender and age ratios of Brauner's holdings suggest a conscious strategy to maximize the return on his investment in human capital. "Robert A. Brauner" 1850 U.S. Federal Census, Slave Schedules, Franklin County, Kentucky, District 1, accessed via ancestry.com.

[783] J. Winston Coleman Jr. "Kentucky River Steamboats" *The Register of the Kentucky Historical Society* Vol. 63, No. 4 (1965), 299-322.

[784] Gilbert Imlay, *A Topographical Description of the Western Territory of North America* (Dublin: William Jones, 1793), 47-49.

is very grand, but the disposition to admire is drowned in the murmur of the waters, and the danger it announces to the mind." Ashe narrowly escaped that danger. His boat was insufficiently attentive to the "possibility of getting into the suction of the fall stream, and from thence into the vortex of the flood" and as the "velocity of the water increased…the uproar of the falls became tremendous, and nothing but the continued and vigorous exertion of the oars saved [them] from sudden and violent perdition." Some dozen boats each year were not as lucky and the wreckage dotting the Falls served as a grim reminder. On a trip to New Orleans to sell Inner Bluegrass produce, John G. Stuart, for example, "found a fresh Human jaw bone on the Beach" below the Falls. The obstacle forced many traders to unload their cargo, portage it at least two miles overland and reload the boat below the rapids before continuing down river.[785] Yet, as in the century before, observers continued to predict a canal would "prove a grand acquisition, and extend benefit far and wide" by allowing "vessels [to] descend at all seasons."[786]

The similarities of the appraisals owe less to any particular acuteness on the observers' part than the obviousness of the hydrological facts governing this section of the Ohio Valley. The physical realities of the Ohio River turned the settlement at the

[785] Thomas Ashe, *Travels in America, Performed in 1806* (London: Newburyport, 1808), 235-236, 239; Stuart Seely Sprague "Louisville Canal: Key to Aaron Burr's Western Trip of 1805" *Register* Vol. 71 No. 1 (1973), 70; Stuart, John G. Stuart, "A Journal, Remarks or Observations in a Voyage Down the KY, OH & MS Rivers," April 28, 1806. The portage business, as well as the transshipment of goods, necessitated by the Falls was an early growth sector in the Louisville economy and helps explain how and why the city developed where it did.

[786] Thomas Ashe, *Travels in America, Performed in 1806* (London: Newburyport, 1808), 235-236, 239.

Falls into a readily identifiable commercial chokepoint and soon led to speculation that a canal would be necessary to ease passage up and down the river. While located on the edge of the geologic Outer Bluegrass, the canal nonetheless influenced the composition of the Inner Bluegrass landscape by increasing the viability of river trade in agricultural products, which allowed for expanded volumes of imports and exports. State and national legislators justified repeated rounds of public investment in the project on the grounds of the purported statewide benefits entailed by the completion of the canal.[787] Almost fifty years after the new town's trustees petitioned the Virginia General Assembly for authorization to dig a canal around the Falls, the Louisville and Portland Canal finally opened to river traffic in late 1830. The physical difficulties of constructing the canal in the unruly Ohio finally overcome, many of the decades-old predictions came to pass.[788] In the first year of operation more than 800 boats traveled through the canal and by the end of the decade more than 2,200 with a total carrying capacity over 300,000 tons passed through the locks. Despite running over the construction budget,

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[787] Paul B. Trescott, "The Louisville and Portland Canal Company, 1825-1874" *The Mississippi Valley Historical Review* Volume 44, No. 4, 1958, 692-693.

[788] Actual construction in the 1820s ran into numerous obstacles as the natural hydrological system of the Ohio proved less malleable than engineers and investors hoped. Labor shortages plagued the efforts from the beginning and much of the work fell to enslaved Kentuckians, rented out by local whites to the construction firms. Seasonal freshets and flooding disrupted the process, washing out progress and forcing laborers to backtrack. Even when opening the canal for the first time, an earth slide and a malfunctioning lock delayed the progress of the initial boat to pass through by several days. Imposing their will on the regional hydrological cycle, even imperfectly and in such a small section of the river, proved more difficult than anticipated, but the persistence with which it was pursued demonstrates the strength of the impulse to improve market access. Richard H. Collins, *History of Kentucky* Vol. 1 (Covington: Collins & Co, 1874), 551-552; Sprague, "The Canal at the Falls of the Ohio," 53.

the canal soon proved the financial success many anticipated, generating dividends around ten percent annually during its first decade, though this often came at the expense of adequate maintenance. The canal saw subsequent expansions and the government took a more active hand in its management, eventually purchasing the outstanding public stock at a tidy profit for the investors in order to reduce toll rates.[789] These improvements eased a major limiting factor in the commercial flows along the Ohio River and therefore influenced the market for Inner Bluegrass produce and livestock.[790]

Of course, the most celebrated innovation in transportation technology during these decades was the railroad. Wherever the iron horse went, it quickly became one of the most prominent features of the material landscape, its significance far exceeding its physical dimensions. The prosperous Bluegrass counties saw the bulk of early efforts to establish the nascent rail industry within the state, beginning with the Lexington and Ohio Railway Company that was incorporated by the state legislature in January 1830 to build a railway west from Lexington to the Ohio River, at a point yet to be determined. Many prominent Bluegrass planters, breeders and manufacturers counted themselves

[789] Paul B. Trescott, "The Louisville and Portland Canal Company, 1825-1874" *The Mississippi Valley Historical Review* Volume 44, No. 4, 1958, 695-698.
[790] George Yater, "Louisville and Portland Canal" *The Encyclopedia of Louisville* (Lexington: University Press of Kentucky, 2001), 531; Louis C. Hunter, *Steamboats on the Western Rivers: An Economic and Technological History* (Cambridge: Harvard, 1949), 183-184; Collins, *Historical Sketches of Kentucky* Vol. 1 (Covington: Collins, 1874), 552-553, 183-184.

among the initial investors in the line, including John Wesley Hunt, Robert A. Wickliffe, Elisha Warfield, and Henry Clay.[791]

Yet obstacles emerged that rendered the railroad more of a novelty than a practical mode of transportation for years after construction began. Building the road and laying the lines themselves posed difficulties in terms of material procurement and labor inexperience, which led to cracked and crumbling roadbeds that had to be rebuilt.[792] Securing engines capable of powering the cars down the tracks, however, represented an even more complex problem to solve. No vendors sold locomotive steam engines west of the Appalachian Mountains and horses provided the initial motive power to first railroad in Kentucky. When a local machinist's hand-crafted engine proved weaker than expected, the operators quickly reverted to horsepower until they finally imported a viable engine. These limitations influenced the slow progress of the line; in the first years, the road only extended six miles "'to a spring and a place of amusement, where there were a bowling alley, billiards, [and] refreshment stands.'"[793]

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[791] Ed Porter Thompson, "Kentucky's First Railroad," 1903, *Register of the Kentucky Historical Society*, Vol. 1, no. 1, 1903, 20-21. Hunt was a merchant, breeder and hemp manufacturer. Wickliffe was a planter and breeder who went on to serve as governor of the Commonwealth during the 1840s. Warfield was a noted physician and breeder who raised the famed "Lexington" racehorse, one of the most celebrated animals of the nineteenth century the image of which still adorns signage in his namesake city. For brief biographies of these men see John E. Kleber, *The Kentucky Encyclopedia* (Lexington: University Press of Kentucky, 1992), 200-202, 447, 551, 950-951.

[792] For example, the contractor building the first section ordered 420 tons of iron for rails from a Baltimore company, to be delivered via the western rivers through New Orleans, Louisville, and Frankfort. Thomas D. Clark "The Lexington and Ohio Railroad—A Pioneer Venture" *The Register of the Kentucky Historical Society* Vol. 31 No. 94 (1933), 15.

[793] Thompson, "Kentucky's First Railroad," 23. This description comes from Daniel Foster, a one-time railroad construction worker on this line.

Once this six-mile section was operating smoothly, the Lexington and Ohio contracted with builders to extend the line west, reaching Frankfort in early 1834.

Even while horses pulled the cars along the rails, passengers marveled at the ease of travel; one horse could pull a load of forty people on the railroad as easily as it could pull two in a carriage on the roads.[794] With the addition of "an elegant new Locomotive of improved model" imported from the east in early 1835, however, some confessed "a very great change" in their view on "the utility and value of the undertaking," which they now believed held the potential to bring "immense advantage to the whole of the commonwealth," especially when it completed the next leg of construction to the Ohio River.[795] Yet, that final leg only slowly materialized. Frustrated in the initial plan, a new company, the Louisville and Frankfort Railway Company, chartered in 1847, built east from Louisville and reached the state capital in 1852. The two companies were finally consolidated in 1858.[796] In the interim, residents of the Inner Bluegrass used the Lexington and *Frankfort* line, as it came to be known during the long delay in reaching the Ohio, as a vital cog in their mixed transportation network. Ultimately, these lines combined to form an important artery of antebellum

[794] Thomas D. Clark "The Lexington and Ohio Railroad—A Pioneer Venture" *The Register of the Kentucky Historical Society* Vol. 31 No. 94 (1933), 16.
[795] *Kentucky Gazette,* January 31, 1835. The article reported that service from Lexington to Frankfort would take two hours. This compared favorably to the half or even full day it took to make the twenty-eight-mile trip previously.
[796] "Lexington & Ohio Railroad" *The Kentucky Encyclopedia* (Lexington: University Press of Kentucky, 1992), 551.

transportation, providing consistent connections between the Bluegrass and the rest of the nation.[797]

Railroads transported a wide variety of goods, including both the products of the agroecosystem and the imported items that Kentuckians craved.[798] As early as 1830, "all the capitalists and men of business in Lexington" began to invest in the rail line to link their city to the Ohio in the hopes that it would "not only increase production, but [also]…render many articles exportable or the subjects of commerce, from the cheapness and rapidity of transportation, which now perish and putrify in the hands of the grower."[799] While skeptics doubted the utility of the railroad for agricultural transportation, especially since such "a great portion" of exports consisted of "live stock driven to market," a promoter insisted that "Stock is driven to market" only because that "is the cheapest mode of getting to market" and rhetorically asked "if you erect a rail road will not the farmer prefer butchering his pork and beef at home, and packing it and preparing it for consumption; thus saving much time, expense and labor, to driving to a contingent market, and at all events losing the price of preparation, by paying for labor that he could have supplied?"[800] The author concluded with the predictions that if "the rail road is completed, no hogs or beeves will be driven across the rail road that are intended for the country of the Mississippi, or which are to be pickled" and "Lexington

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[797] Thomas D. Clark "The Lexington and Ohio Railroad—A Pioneer Venture" *The Register of the Kentucky Historical Society* Vol. 31 No. 94 (1933), 9-28; R. S. Cotterill, "Early Railroading In Kentucky" *Register of the Kentucky Historical Society*;
[798] Diane L. Lindstrom, "Southern Dependence Upon Inter-regional Grain Supplies: A Review of the Trade Flows, 1840-1860," Agricultural History 44 no 1 (1970): 101-113.
[799] "From the *Kentuckian*" (Frankfort), *Louisville Public Advertiser,* February 23, 1830, 3.
[800] "From the *Kentuckian*" (Frankfort), *Louisville Public Advertiser,* February 23, 1830, 3.

will be the head of navigation" in a mixed transportation system, becoming "the emporium of internal commerce, the *nexus* between the ordinary land carriage effected by common transportation, and at the risk of the producer, and that transportation which conducts at the risk of the capitalist, to the hands of the consumer."[801] Thus, within a month of its incorporation, the defenders of the Lexington and Ohio line framed the railroad in terms of the advantages for breeders operating in the Bluegrass grazing system and by articulating a clear vision of the role it would play in knitting that system to the broader regional economy.

Fifteen years later in 1845, a proponent of finishing the line from Louisville to Frankfort to meet the existing route from Lexington touched on similar themes. He noted the twenty-eight-mile line currently moved eleven thousand tons of cargo yearly and nearly twenty thousand passengers, but argued those figures would expand dramatically if the entire distance from Lexington to Louisville were completed. He predicted tonnage and passenger rates would nearly triple, especially boosted by an additional thirty thousand head of "hogs and sheep for slaughter in Louisville" and five thousand "horses, mules and bullocks" annually.[802] Other lines also saw lots of agricultural products among their cargo, including the Covington & Lexington which transported forty-five percent of the wheat and almost thirty-five percent of the hogs sold by Kentuckians in Cincinnati by 1857, though the last leg of their trip occurred on a

[801] Ibid.
[802] "Lexington and Ohio Railroad" *American Railroad Journal*, Vol. 18, July 17, 1845, 459.

ferry across the Ohio from the railways terminus in Covington.[803] By the late 1850s, the link to Louisville also connected the Bluegrass to markets on the Atlantic coast, like Savannah and Charleston, previously accessible only via the labor of overland drovers.[804] Commercially oriented farmers saw broadly shared interests between agricultural producers and the railroads, though they sometimes bemoaned what they saw as a lack of appreciation of this relationship on the railroads' part.[805]

In this branch of transportation, too, the state and local governments played a major role in financing the reordering of the flows of people and goods across the landscape.[806] State investment in rail companies provided an early boost to promoters who saw the new technology as key to enhancing their region's economic prospects. In 1840, the state auditor reported $120,000 in appropriations for the Lexington & Ohio from 1836 to 1838, more than $14,000 in interest payments on bonds in 1840 and projected paying $9,000 in 1841 in interest on bonds issued to the company.[807] On the local level, in 1836 the city of Louisville financed early progress on the branch of the Lexington and Ohio stretching east from their city to link with the existing line at

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[803] "Kentucky Central Railway" *Kentucky Encyclopedia* (Lexington: University Press of Kentucky, 1992), 491-492.
[804] Diane L. Lindstrom, "Southern Dependence Upon Inter-regional Grain Supplies: A Review of the Trade Flows, 1840-1860," Agricultural History 44 no 1 (1970), 108.
[805] "Railroads and Agricultural Societies" *Kentucky Farmer* Vol. 1, No. 1, July, 1858, 12.
[806] Carl B. Boyd Jr. "Local Aid to Railroads in Central Kentucky 1850-1891 part I" *The Register of the Kentucky Historical Society* Vol. 62, No. 1 (1964), 4-23; "Local Aid to Railroads in Central Kentucky 1850-1891 part II" *The Register of the Kentucky Historical Society* Vol. 62, No. 2 (1964), 112-133.
[807] Kentucky Revenue Department, *Report of the Second Auditor for the Year Ending on the Tenth Day of October, 1839* (Frankfort: A.G. Hodges, State Printer, 1839), Issues 1-2, 1839-1840, 16-17, 51, 59.

Frankfort, via a $200,000 loan from the National Bank of Kentucky, for which the city received stock in the company and to be paid for by a one percent tax on residents' real estate.[808] Despite such investments, early routes often failed to establish financial viability and could be sold to the state, which then leased the right to operate the road.[809]

As with river improvement, steamboat operation, and canal construction, antebellum railroads across the Bluegrass depended on the labor of enslaved Kentuckians. During the rebuild and operation of the Lexington & Frankfort line during the 1840s, for example, Henry Murray's financial papers reveal the ways entrepreneurial white men could exploit their legal control over enslaved Kentuckians and the labor demands of the railroad to their financial advantage. Murray kept detailed records of the men and boys he rented from their enslavers in order to fill maintenance contracts with the Lexington & Frankfort Railroad line, including "hauling spikes," "assisting putting on [the] steam engine" and replacing worn out ties.[810] Not only did enslaved Kentuckians work to support the railroad which facilitated agricultural commerce, they actively modified the landscape to do so. Rail lines consumed vast quantities of raw materials, including lumber procured by black Kentuckians used for ties and fuel.[811]

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[808] Thomas D. Clark "The Lexington and Ohio Railroad—A Pioneer Venture" *The Register of the Kentucky Historical Society* Vol. 31 No. 94 (1933), 19.
[809] Ibid., 20-21.
[810] For example, see "Extra Work on Lex & Frkft R. R. from January 1st to June 1st 1849"
[811] Like steamboats, railroads also burned coal to power their engines which diffused their influence on the landscape far beyond the immediate area in which they operated.

There is an irony to the rapidity of investment in transportation improvements. They sought more efficient connections with the markets of the nation in order that Kentuckians might flourish. Yet, the financial commitments often proved unmanageable, especially in the inflationary 1830s. As the Panic of 1837 and subsequent years of financial uncertainty shook the Bluegrass, it appeared to many that the rush to modify the landscape via built transportation infrastructure to ease the flow of people, goods, and information, might have undermined agricultural prosperity. Some blamed the state government's "vast system of public improvements [undertaken] on its own credit" for touching off the "financial hurricane" of "universal and enduring distress" that left "nearly every business man in the State, and very many of the farmers…rendered bankrupt or burdened by debt to the point of virtual insolvency."[812] While the exact role that public investment in transportation infrastructure played in sparking the economic downturn, as opposed to private indebtedness linked to agricultural and commercial activities, shoddy banking practices, or any number of other factors, cannot be determined conclusively, it nonetheless highlights the way in which investment in landscape modification often led to unintended consequences. The public

[812] N.S. Shaler, *Kentucky: A Pioneer Commonwealth* (Boston: Houghton, Mifflin & Co., 1885), 188-191. Shaler went on to claim "the years 1840, 1841, and 1842 were the most hopeless that this people have ever known. Not even the shadowed days of the Civil War brought such despair to their firesides. War brings the light of action and expectation, with its swift movements, that is wanting in a time of universal bankruptcies." This later claim rings of hyperbole, especially when one considers the firesides of those who lost loved ones in the fighting, but speaks to the depth of the impact of a financial downturn on the agricultural population.

improvements aimed to enhance Kentuckians economic prospects, yet much of their potential remained unfulfilled by the early 1840s amid the general economic malaise.

Yet, as suggested above, the 1840s did not see the end of transportation changes in the Bluegrass as the downturn proved temporary. In fact, for the railroad, its day had not yet arrived and its prominence in the landscape continued to grow rapidly. By 1860, iron rails webbed the central Kentucky landscape to the Ohio River at both Louisville via the long-developing line through Frankfort and to Cincinnati via the Kentucky Central Railroad.[813] They also increasingly operated independently of river travel, as in the case of the Louisville and Nashville line, chartered in 1850 and completed in 1859, which ultimately became the most successful line in the state. While not the "emporium of internal commerce" predicted in 1830, Lexington and the Inner Bluegrass nonetheless lay near the center of the almost six hundred miles of tracks Kentucky had laid by 1860 and benefitted from the commercial connections they engendered.[814]

Despite many Kentuckians continued dissatisfaction with their transportation system and insistence that it required further improvement, by the end of the antebellum era agricultural optimists referred to recent history for evidence that the future held further advances. While allowing that many farmers struggled to get their produce to market, one contributor to the *Kentucky Farmer* rhetorically asked his

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[813] "Kentucky Central Railway" *Kentucky Encyclopedia* (Lexington: University Press of Kentucky, 1992), 491-492.

[814] Lowell H. Harrison and James C. Klotter, *A New History of Kentucky* (Lexington: University Press of Kentucky, 1997), pg. 132-133; for "emporium" prediction see "From the *Kentuckian*" (Frankfort), *Louisville Public Advertiser,* February 23, 1830, 3.

readers "Are not turnpikes and canals increasing? Are not railroads springing up with wonderful rapidity, acting as arteries and veins to the body of the country? As the land is cultivated and populated, do not facilities of travel and transportation also steadily advance?"[815] These changes, cast as the early stages of an on-going elaboration of modern transportation infrastructure, amounted to a rapid increase in mobility that effectively shrank distances in the Bluegrass landscape. Improved roads sliced the time it took to travel the sixty-four miles from the Ohio River at Maysville to Lexington from the "scarcely credible, but nevertheless true…near four days [of] travel, though mud and mire" in 1829 to as little as eight or ten hours, with the added benefit of a smoother, more comfortable trip, whether in a stagecoach, on horseback or on foot. Railroads allowed people and goods to move at unprecedented speeds, reducing the trip from Lexington to Frankfort, for example, to mere hours instead of the bulk of a day.[816] Canals and steamboats affected similar changes in transportation on western rivers; the time it took to travel from the Bluegrass to New Orleans and back fell from almost one hundred days, including the six weeks it took to walk back when John G. Stuart made the trip in 1806 to a fortnight by 1860, when those with the means could make the entire journey from the relative comfort of a steamboat deck.[817] These turnpikes,

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[815] "Have We Too Many Farmers?," *Kentucky Farmer* (Frankfort) Vol. 1, No. 1, July 1858, 4.

[816] "Fowler's Garden Speech" Lexington, May 16, 1829, Henry Clay, *The Papers of Henry Clay. Volume 8, Candidate, Compromiser, Whig, 1829-1836* (Lexington: University of Kentucky Press, 1984), 53.

[817] John G. Stuart, *A Journal, Remarks or Observations in a Voyage Down the KY, OH & MS Rivers,* 1806, Kentucky Historical Society online collections <http://kyhistory.com/cdm/ref/collection/MS/id/10400> accessed November 15, 2016. The calculations for Stuart's trip do *not* include the two months he spent on the

railroads and canals occupied only a tiny slice of the overall physical environment, yet they helped to transform the ways in which Kentuckians moved across and interacted with the entire landscape by facilitating more intensive landuse and a quickening pace of commerce.[818] The massive sums invested in transportation improvements, by both public and private entities, speaks to the strength of Inner Bluegrass residents' desire for enhanced physical linkages with the rest of the country and their justifications emphasize the role of financial considerations.

Industrial and Commercial Bluegrass Landscapes

As with transportation infrastructure, itself a growing industry, regional manufacturing and commerce also depended upon and influenced the agricultural landscape in ways that exceed their physical footprints. Whether producing agricultural implements to sell to farmers or manufacturing goods from locally sourced materials, local industry blurred the distinctions between agriculture and manufacturing. Indeed, some farmers made the comparison explicit, arguing "the farm is as much a

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Kentucky River waiting for water levels to rise sufficiently to begin the trip and estimates the time the final leg of his journey, from 120 to 140 miles south of Nashville where his journal ends to Lexington, based on his reported progress of 30 to 40 miles on foot, per day. A British traveler in the late 1850s reported a typical trip from Louisville to New Orleans on the steamer "Pacific" took approximately six days and could be accomplished in "comfort" and "good taste." Isabella Strange Trotter, *First Impressions of the New World* (London: Longman, Brown, Green, Longmans & Roberts, 1859), 247-248.

[818] Even in the second decade of the twenty-first century, almost two hundred years after these transportation improvements began, only 0.6 percent of the land area of the lower 48 states is covered by roads. A much small portion was covered during the antebellum period by the improved, macadamized road system or newly invented technologies like railroads. American Road & Transportation Builders Association, "Frequently Asked Questions: Are We 'Paving Over America?' How Much Land Is Used for Roads in the U.S." http://www.artba.org/about/faq/ <accessed April 11, 2017>

manufactory as any which can be named" and must be operated as such to maximize productivity and prosperity.[819] This thoroughly commercial outlook characterized many antebellum Bluegrass farmers who evaluated the landscape and their agricultural success or failure in starkly financial terms. As with the livestock discussed in the previous chapter, agricultural operations sought greater economic value, not necessarily greater raw production. Since farming remained far and away the largest segment of the antebellum economy, commercial enterprises in the Bluegrass rose and fell in symbiosis with agricultural prosperity.

The bourbon industry provides a prominent example of the centrality of agriculture to the regional economy, a relationship still celebrated today.[820] As discussed in previous chapters, the practice of distilling corn and other grains into whiskey arrived in the Bluegrass with some of the earliest Euro-American settlers, yet the scope and purpose shifted considerably in subsequent decades. Whereas early distillers often produced whiskey for themselves and their neighbors while selling their limited surplus, later distillers crafted bigger batches primarily intended for sale outside the region. This trend can be seen in the number of operational distilleries in Kentucky, which fell from twenty-two hundred in 1810 to fewer than nine hundred by 1840 and below two

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[819] "Farm Accounts and Statistics," *Kentucky Farmer* (Frankfort) Vol. 1 No. 1, July 1858.

[820] On the "celebrated today," see the recent purchase of 233 acres of Franklin County land by Buffalo Trace Distillery to grow rye and their efforts to secure a larger share of their corn supply locally, a fact tour guides emphasize. "Buffalo Trace in Frankfort buys 233 acres adjoining its property," http://www.kentucky.com/news/business/bourbon-industry/article44524098.html November 17, 2014, <accessed November 29, 2016>; author visit, June, 2016. The focus here on whiskey should not completely overshadow the fact that Kentuckians also distilled fruit from their orchards into brandy and hard ciders, as mentioned above.

hundred by 1864. Geographer Karl Raitz has highlighted the ecological context of these changes, emphasizing the importance of climate, geology, hydrology and soil in Kentuckians early distilling practices and their evolution amidst technological changes. Distilling began as a vernacular and highly local process, but became increasingly uniform and specialized as entrepreneurial distillers invested in new, larger, column stills, capable of producing far greater quantities of whiskey and consuming more grain each year.[821] The transportation changes outlined above facilitated this evolution, but the falling number of distilleries nonetheless produced a growing volume of potent and portable Kentucky bourbon, much of which ultimately slaked the thirst of people far beyond the Bluegrass; even amidst the upheaval of the Civil War, Kentucky distillers produced almost three and a half million gallons of whiskey per year, valued at nearly one million dollars.[822]

The strength of the modern association between Kentucky and bourbon might give a misleading impression of the physical prominence of distilling operations in the historic landscape. For example, Bourbon County only had one in 1860, according to the manufacturing census.[823] Yet, the market for agricultural produce that the industry created meant its influence extended beyond the physical confines of each distillery or

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[821] Karl Raitz, "Making Bourbon: A Landscape Ecology of Distilling Practices in Nineteenth-Century Kentucky" keynote address, Agricultural History Society annual meeting in Lexington, Kentucky, June 6, 2015; Michael R. Veach, *Kentucky Bourbon Whiskey: An American Heritage* (Lexington: University Press of Kentucky, 2013), 37-38.
[822] Thomas D. Clark, *The History of Kentucky* (New York: Prentice-Hall, 1937), 565; the production amounts are particularly impressive weighed against the state's total population of 1,155,684 in 1860, Eighth Census.
[823] *Manufactures of the United States in 1860; Compiled from the Original Returns of the Eighth Census* (Washington: Government Printing Office, 1865), 169.

even the sprawling, single-floor warehouses where barrels aged.[824] The single Bourbon County distillery in 1860, for instance, was by far the largest manufacturing operation in the county, employing fifty-two men at a cost of more than $21,000, consuming over $120,000 in raw materials, and producing more than $150,000 worth of liquor.[825] The seasonal rhythms of bourbon distilling lagged about six months behind those of farmers. Operations ramped up when both grain and labor were in greatest supply in the late fall and hummed along through the late spring; this pattern allowed for the more efficient allocation of those resources than would have been possible without the bourbon industry and helped to support local agricultural markets by raising overall demand and smoothing seasonal variations. In a similar fashion, the demand for bourbon barrels stimulated local lumber industries and contributed to regional deforestation. The connections between farmers and distillers often even worked in reverse, as they did at the Elkhorn Distillery in Scott County, where the proprietor purchased all the raw materials for his bourbon from local farmers and sold his spent "mash" back to a local farmer as feed for livestock.[826]

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[824] Antebellum warehouses could only stack barrels three high, which prevented the construction of taller, more compact warehouses that characterize later periods and modern aging facilities. Karl Raitz, "Making Bourbon: A Landscape Ecology of Distilling Practices in Nineteenth-Century Kentucky" keynote address, Agricultural History Society annual meeting in Lexington, Kentucky, June 6, 2015. The modern aging warehouse awaited Frederick Stitzel's invention of a rack for that allowed the weight of barrels to be distributed to a supporting structure instead of on the barrels below, which he perfected in Louisville during the 1870s. Frederick Stitzel, United States Patent: 221,945, "Rack for Tiering Barrels," issued November 25, 1879.

[825] Eighth Census, 1860, Manufacturing Schedule, 169.

[826] Elkhorn Distillery records, 1868-1872. University of Kentucky Special Collections. "Mash" refers the grain mixture that is ground, combined with water and yeast, heated

Similar relationships between agricultural growers and industrial manufacturers stimulated the hemp industry. As suggested in previous chapters, hemp culture linked Bluegrass planters to local agro-industrialists who produced finished goods for regional, national, and international markets. In one sense, the connection is relatively straightforward with readily identifiable manufacturing operations purchasing hemp from local farmers to process the fiber into items such as rope and bagging. Yet even in the fields themselves, hemp culture took on a proto-industrial cast, as we have seen.

Local industry also often focused on agricultural markets, producing the implements of farm life, from basics like nails and milled wood to newly designed mechanical reapers. Tools like rakes, shovels, saws, hammers and scythes mediated the ways in which Bluegrass residents experienced the material world, while components like bricks, shingles and fence railing were incorporated into the built environment, helping rural Kentuckians shape the physical landscape. The connections between agriculture and industry in central Kentucky had been apparent since the early nineteenth century as when traveler John Melish listed the major, non-farming and non-hemp related professions to found in Lexington, including “masons and stone-cutters, brick-makers, carpenters, cabinet-makers, coopers, turners, machine-makers, smiths, nailors, copper and tin-smiths, brass-founders, gun-smiths, silver-smiths, watch-makers, tanners, curriers, saddlers, boot and shoe-makers, butchers, bakers, brewers, distillers, stocking-makers, dyers, taylors, tobacconists, soap-boilers, candle-makers, brush-

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and fermented to produce the raw bourbon or “white dog” that was subsequently placed into charred barrels to age.

makers, potters, painters, confectioners, glovers and breeches-makers, straw-bonnet-makers, and hatters."[827] Virtually all of these professions either produced items for use in the agricultural landscape or produced items via raw materials of local cultivation.

Antebellum advertisements in regional periodicals amply demonstrate the continued connections between commerce, industry, and agriculture; notices from the buyers of agricultural surpluses co-existed with advertisements for everything from imported wine to farming machinery and the two types of transactions (selling agricultural goods and buying items with the proceeds) dominated the Bluegrass economy.[828] Even non-commercial stories often functioned as promotional material for locally produced farming tools, as when George Williams of Bourbon County contributed a piece on "Agricultural Implements" to the *Western Farmer & Gardner* and highlighted the advantages to be gained by using innovative products like a new "revolving hay rake," hemp cradle and roller that were made in his county.[829] Emphasizing the labor savings each implement might yield was a common trope; advertisements and testimonials often included claims along the lines that a device would allow one man to complete "the labor of four hands."[830] From simple, traditional

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[827] John Melish, *Travels through the United States of America* (London: George Cowie and Co., 1818), 402-403.
[828] For example, see the back page of any antebellum issue of the *Kentucky Gazette*, *Franklin Farmer*, *Kentucky Farmer* or *Louisville Public Advertiser*.
[829] George Williams, "Agricultural Implements" *Western Farmer & Gardner, Devoted to Agriculture, Horticulture, and Rural Economy* Vol. I, No. XII, Edited by Thomas Affleck (Cincinnati: Charles Foster Publishing, 1840), 330-331.
[830] George Williams, "Agricultural Implements" *Western Farmer & Gardner, Devoted to Agriculture, Horticulture, and Rural Economy* Vol. I, No. XII, Edited by Thomas Affleck (Cincinnati: Charles Foster Publishing, 1840), 330.

tools to complex, novel inventions, each of these items influenced the material composition of the region, whether in large or small ways.

Census statistics suggest the degree to which local industry focused on agricultural products. According to the 1860 census of manufacturing, for example, Bourbon County residents operated ninety-eight industrial or semi-industrial outfits including thirteen blacksmiths, eight shoe and bootmakers, eight millers, seven saddlery and harness makers, six carpentering companies and six organizations building wheeled vehicles, such as wagons and carts.[831] These sectors, along with the distillery industry discussed above, comprised the largest portion of the manufacturing economy of the Bluegrass when measured by a range of metrics including number of establishments, level of capital investment, consumption of local agricultural materials, labor requirements and monetary value produced.[832] Fayette County stood out amongst the Inner Bluegrass counties with a larger manufacturing sector, but it too remained largely oriented to regional agricultural production. All the industries found in Bourbon County existed in Fayette as well, but Lexington's role as the manufacturing center of the Inner Bluegrass is suggested by the greater scope of the operations and the larger amounts of local agricultural production they consumed. For example, the grains that became flour and meal, the fleece that Kentuckians processed into woolen goods, and the hemp destined to become bagging or cordage, comprised nearly sixty-five percent of the raw

[831] *Manufactures of the United States in 1860; Compiled from the Original Returns of the Eighth Census* (Washington: Government Printing Office, 1865), 169.
[832] Ibid., 168-195.

materials used by Lexingtonian manufacturers.[833] However, Bluegrass farmers' desire to maximize their productivity and minimize their labor requirements often led merchants to offer agricultural implements manufactured outside the immediate vicinity, especially from industrializing cities like Pittsburgh, Cincinnati, and Louisville. The above transportation improvements made it increasingly possible for central Kentucky merchants to offer a much wider assortment of goods, including agricultural tools and machinery, at lower prices even when imported from long distances. Local newspapers also often carried notices from regional firms, whether from general and commission merchants like Alexander, Talbott & Co., or specialized companies like the Loomis & Burrows slate roofing company and Miller, Wingate & Co. that made the "Kentucky Harvester."[834] These indicate the connections between the Bluegrass agricultural system and the broader regional economy.

The above discussion of the material landscape of the antebellum Inner Bluegrass remains incomplete without directly addressing the motivations and incentives driving the changes, despite the fact that these motivations only existed in the minds of the central Kentuckians. The people directing landscape change, overwhelmingly white men, made conscious calculations based on their perceptions of

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[833] Ibid., 173-174. Since large portion of the antebellum agricultural surplus produced in the Inner Bluegrass flowed west to Louisville and the Ohio River, as we have seen, it is worth noting the dominant position Jefferson County enjoyed in manufacturing, relative to the rest of the state. Inner Bluegrass produce certainly contributed to the nearly eight million dollars of raw materials used by Louisville firms and the more than fourteen-million-dollar total value of their production.

[834] *Lexington Observer & Reporter*, July 21, 1860; *Kentucky Farmer*, Vol. 1, No. 10, 1859, 152.

the ecological and economic context, seeking to maximize their production and prosperity. Indeed, as one contemporary argued "so rapid has been this change, and so complete the transformation" that it seemed the work of "the magic influence of gold, and the energy of a superior industry" in its pursuit that "had converted the face of the land from a desert to a paradise."[835] In reality, of course, the desire for profits and prestige did not operate directly on the landscape, instead it came mediated through the perceptions of white men and the labor of all Bluegrass residents.

The combined changes to the material landscape from 1830 to 1860 represented an elaboration of processes that began in the earlier period and thus do not reveal a fundamental reorganization of the regional ecology on the level of the late eighteenth and early nineteenth centuries. Yet, incremental, piecemeal changes can have as large or larger cumulative impacts, as the evolution of the Inner Bluegrass agroecosystem demonstrates. While the spread of "internal improvements" and the expansion of commerce do not hold the same dramatic flair as the destruction of Kentucky's bison or the expropriation of native lands, the antebellum changes nonetheless constitute an important chapter of the environmental history of the Bluegrass. Looking back on the antebellum decades, Kentuckians often struck a proud note in their descriptions of the landscape; Nathaniel Shaler, for example, described the Bluegrass as "cleared of its forests and brought under plough tillage" with "every portion of the more fertile

[835] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 67. "Desert" in this context suggested a wasted land, or unproductive, non-economically useful land, rather than the contemporary meaning of a dry region.

districts…penetrated by turnpike roads, by railways, or…by artificial navigation of the rivers" which allowed white central Kentuckians to build upon "the foundation of their wealth" they had established by selling surplus agricultural production.[836] The system drew praise for its' "spacious lawns, studded with noble trees" that formed "a prominent feature in the scenery," for its "alternations of woodland and meadow, with hemp and cornfields" that rendered virtually "every foot of ground…productive" and for supporting a "country possessing wealth, industry, and refinement."[837] Yet, shifting our focus to the human components of the system, to the men and women whose ideas and labor nurtured new ecological relationships and cultivated a new landscape, illustrates the significance of antebellum agroecological change to the lives of all Kentuckians. It also emphasizes the dramatic differences in the ways in which residents experienced and interacted with the Bluegrass environment.

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[836] Shaler, pg. 226

[837] James Hall, *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery* (Philadelphia: Harrison Hall, 1838), 64-66.

Chapter Ten: African Americans Experience Antebellum Bluegrass Landscapes

Kentuckians' experience of the physical Bluegrass environment depended on the individual's place within the social and economic structures erected on the landscape. Looking back on antebellum central Kentucky two decades after the Civil War, a nostalgic white Kentuckian praised the "richest" and "most quiet years" during the 1840s and 1850s, after the Bluegrass farmers adapted the grazing system to their diverse agricultural landscape.[838] Anticipating that future audiences might not fully appreciate their predecessors' role in creating the world they inhabited, Nathaniel Shaler emphasized "that the expenditure of labor required to bring an acre of Kentucky land under tillage is many times as great as that required to subjugate prairie land" since the "mere felling of the forest and grubbing of the roots require at least twenty days' labor to the acre of ground." In his mind, it required "a vivid imagination, or some personal experience, to conceive of the enormous amount of physical labor" that had shaped the Bluegrass landscape.[839] Shaler's observation spoke to an inextricable relationship between residents and the local environment. People's lives unfolded in the physical world, both influenced by and influencing its composition. Human labor played

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[838] N.S. Shaler, *Kentucky: A Pioneer Commonwealth* (Boston: Houghton, Mifflin & Co., 1885), 216.

[839] Ibid., 226. Shaler is an interesting character in his own right. Raised in Kentucky, he received a classical education at Harvard, served as a captain in the Union war effort, became the state geologist, and was appointed Dean of Harvard's Lawrence Scientific School. His *Kentucky* history includes some useful information, but also struck a paternalistic tone and downplayed the importance of slavery as anything more than a drain on the state, "no longer profitable, already in fact on its wane" before the Civil War began. Shaler, 229. For more on Shaler in Kentucky see Ivan L. Zabilka "Nathaniel Southgate Shaler and the Kentucky Geological Survey" *The Register of the Kentucky Historical Society* Vol. 80 No. 4 (1982), 408-431.

vital roles in shaping the ecological systems of the region. As in the material landscape, the experiential landscapes of the Bluegrass displayed remarkable diversity and many residents lived through the hardships entailed by operating the agroecosystem much more directly than did Shaler. Focusing on the ways in which black Kentuckians interacted with the local environment, in particular, reveals different aspects of the Bluegrass landscape that are typically obscured or downplayed in accounts that privilege white male perspectives.

As the previous chapters, footnotes, and bibliography amply demonstrate, most of the sources that are available to the twenty-first century historian of the antebellum landscape come from a small slice of the overall population. For a variety of reasons, the perspectives and voices of elite white men dominate the primary archives and secondary literature. Modern historians approach the problem cautiously and creatively, reading sources against the grain for insight on the lives of other groups, yet it remains easy to slip into an overreliance on elite, white, male perspectives. Their ubiquity in the surviving evidence conflicts dramatically with their portion of the overall population. White men, of all economic statuses, comprised only 13.2 percent of the residents of the study area in 1840, which rose slightly to 13.9 percent in 1850 and 14.7 percent by 1860.[840] The category of "white men," obscures significant diversity as a

[840] "White men" refers to those over the age of 19 according to county-level census returns. Statistics derived from *Compendium of the Enumeration of the Inhabitants and Statistics of the United States…from the Returns of the Sixth Census* (Washington: Thomas Allen, 1841); J. D. B. DeBow, *The Seventh Census of the United States: 1850* (Washington: Robert Armstrong, 1853); Joseph C. G. Kennedy, *Population of the United States in 1860; Compiled from the Original Returns of the Eighth Census*, (Washington: Government Printing Office, 1864), accessed via census.gov (February 15, 2017).

wealthy Bluegrass land and slaveholding planter experienced the landscape very differently from a poor white day laborer. Yet even starker differences characterized the experiential landscapes inhabited by white men and the other residents of the region.

While still limited by the extant sources, this chapter reads them to reveal the diversity of these landscapes, taking those circumscribed physical spaces inhabited by the enslaved as seriously as those inhabited by their enslavers, viewing the curtailed sphere most women inhabited as essential to the broader agricultural economy, and highlighting the different forms of childhood in the Bluegrass. Rather than start with the elite white men who held the greatest power to influence the overall physical landscape and proceeding down the antebellum hierarchy, a framing that continues to privilege their perceptions, it opens with those who held the least power and moves up the hierarchy. Starting with an examination of the ways enslaved children interacted with the landscape, the chapter then explores the experiential landscapes inhabited by enslaved women and men, free black Kentuckians, poor whites, middling farm and laboring white families, before addressing elite white experiences in the agricultural system. Many features of the physical world, like outbreaks of infectious diseases or transportation innovations, influenced the lives of all Kentuckians, yet addressing their differential impacts reveals some of the ways the structure of the Bluegrass agroecosystem benefitted and protected some residents at the expense of others.

Bluegrass Bondage

After escaping to Canada, Eli Johnson recalled an argument in which his Kentucky enslaver accused him of intentionally working on the wrong task. Johnson

replied that "I've got to work till I die" so he "had as lief work at one thing as another."[841] Johnson's quip that he expected a lifetime of labor and saw little difference between the various duties he performed accurately spoke to the centrality of assigned, non-paid work to the lives of enslaved Kentuckians, yet by collapsing the differences between different types of tasks, it obscured the diversity of the experiential landscapes of Bluegrass slavery.

A life of bondage in the Bluegrass began at birth. While the legal and economic dimensions of the relationship remained vague to the enslaved child, the role the enslavers envisioned for their human property shaped the ways most young black Kentuckians experienced the world.[842] In some cases, white intervention in a black child's live order to protect or enhance the white's investment occurred early in life. Some masters hired doctors and provided medical care for pregnant mothers or for newborns. Yet, this prudent financial decision should not be mistaken for white self-sacrifice, "gentle" or "mild" treatment. The recollections of people "brought up, or rather whipped up, in Kentucky" slavery provides a more accurate reflection of the experiential landscapes of Bluegrass enslavement.[843]

Smart Edward Walker recalled being assigned "'little chores around the house'" when he was a four-year old and by age ten Walker labored in the fields alongside "the

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[841] Benjamin Drew, *The Refugee: Or the Narratives of Fugitives Slaves in Canada* (Boston: John P. Jewett and Co., 1856), 386.
[842] The experiences of enslaved children in the Bluegrass reflected many of the common patterns from the era, see Wilma King, *Stolen Childhood: Slave Youth in Nineteenth-Century America*, 2nd ed. (Bloomington: Indiana University Press, 2011).
[843] J. F. White in Benjamin Drew, *The Refugee: Or the Narratives of Fugitives Slaves in Canada* (Boston: John P. Jewett and Co., 1856), 339.

grown-up slaves."[844] Often, enslaved children's role within the agricultural system took a more concrete form via this type of transition when they assumed relatively "light" duties in the fields and around the farm. Enslavers viewed boys as young as nine years old as ideal "hands" to complete tasks to support the labor of stronger people by doing the small, repetitive jobs that freed up adults to concentrate on heavier and more complex work. Peter Still, for example, was expected to unload three thousand bricks a day with a young partner and if they fell behind on their quota at the brickyard, both the manager and the other enslaved workers might subject them to punishment.[845] In this way, the expropriated labor of enslaved children allowed central Kentucky enslavers to maximize the productivity of their most valuable assets: enslaved adults and the limited daylight hours during tight portions of the agricultural calendar. A few examples from the pages of regional agricultural journals demonstrate the pattern. Hay production, for instance, benefitted from the labor of "boys" who spread and shocked the grass after it had been cut by a man operating a mower. "A smart twelve year old boy" was also key to moving hay from the shocks into a larger stack, using horsepower to drag the shocks across the landscape after a couple of days of drying. In a single day working with adult stackers, a boy could haul almost nineteen thousand pounds of hay and supplement the labor of two adults.[846] Enslaved children played similar supporting roles in hemp

[844] Smart quoted in Marion Brunson Lucas, *A History of Blacks in Kentucky: From Slavery to Segregation, 1760-1891*. 2nd ed. (Frankfort: Kentucky Historical Society, 2003), 10.
[845] Lucas, 11.
[846] "Making Hay in Kentucky," *Kentucky Farmer* Vol. 1, no. 1, 1858, 9-10.

production, wheat cultivation, pest control in the orchards, and maintaining ponds.[847] Even beyond the strictly agricultural sectors of the economy, enslaved Kentucky boys often performed important labor, as in hemp manufacturing industries. During 1830, for example, approximately twenty boys between the ages of eight and fifteen labored in a single Lexington rope walk where they spun hemp fiber into rough thread that served as filler for ropes.[848] In many cases, enslavers placed children on the labor rental market.[849] This practice added a level of flexibility to the system and allowed whites to tap into the financial value of young black bodies even if their labor was surplus to the requirements of their enslaver's farm.

From the perspective of enslaved children, the enslaving whites formed prominent features in their world. Joseph Sanford, for instance, recalled his father's advice to always "be tractable, and get along with the white people in the best manner…and not be saucy" since whites held such arbitrary power over their lives.[850] This counsel stood young Sanford in good stead as the rest of his time in Kentucky varied largely in terms of the types and conditions of the labor he performed at the direction of and to benefit his white enslavers. The centrality of former owners and overseers in the narratives of those who escaped slavery suggests the important place whites occupied in the experiential landscapes of black Kentuckians.

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[847] "Cutting and Stacking Hemp," *Kentucky Farmer* Vol. 1 no. 2, 1858, 26-27; "Raising and Saving Hemp Seed" *Kentucky Farmer* Vol. 1, No. 3, 1858, 41-42; "Sowing Wheat," *Kentucky Farmer* Vol. 1 No. 4, 59; "Work for the Boys," *Kentucky Farmer* Vol. 1, No. 12, 1859, 184; "Making and Cleaning Ponds" *Kentucky Farmer* Vol. 1, No. 2, 1858, 29.
[848] Louisville *Daily Journal*, November 29, 1830.
[849] Lucas, 24.
[850] Drew, 358.

Figures 10.1 and 10.2 demonstrates the number of enslaved residents of the six-county study area as well as the age profiles of those populations as enumerated during the national censuses from 1840 to 1860. In 1840, Kentuckians held more children under the age of ten in bondage than they did people older than twenty-three and there were more enslaved children than adult white men. By 1860, the skewed age profile of the enslaved population had eased some, but children and adolescents under the age of twenty still outnumbered the enslaved adults by almost six thousand and numbered almost nine thousand more than the study region's adult, white male population. Throughout the antebellum years, enslaved children and adolescents remained more than a quarter of the local population.[851] The relative youth of the enslaved population stemmed from a number of factors and held implications for the agroecosystem. These young Kentuckians labored at a variety of tasks and by their adolescence they contributed to the profitable ventures of Bluegrass agriculture. The preponderance of youthful Kentuckians among the enslaved also suggests that historians misplace their emphasis by focusing primarily or exclusively on the labor of adults. Black Kentuckians contributed to the agricultural economy from an early age.[852]

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[851] In 1840, 29.5 percent of the population in the study area was an enslaved person under the age of twenty-four, in 1850 more than 26 percent were enslaved people under the age of twenty and more than one in four residents in 1860 was an enslaved person under twenty years old.

[852] Daina Ramey Berry, *The Price for Their Pound of Flesh: The Value of the Enslaved, from Womb to Grave, in the Building of a Nation* (Boston: Beacon Press, 2017), explores the financial sides of American slavery in ways that emphasize the value wrung from enslaved bodies throughout their lives.

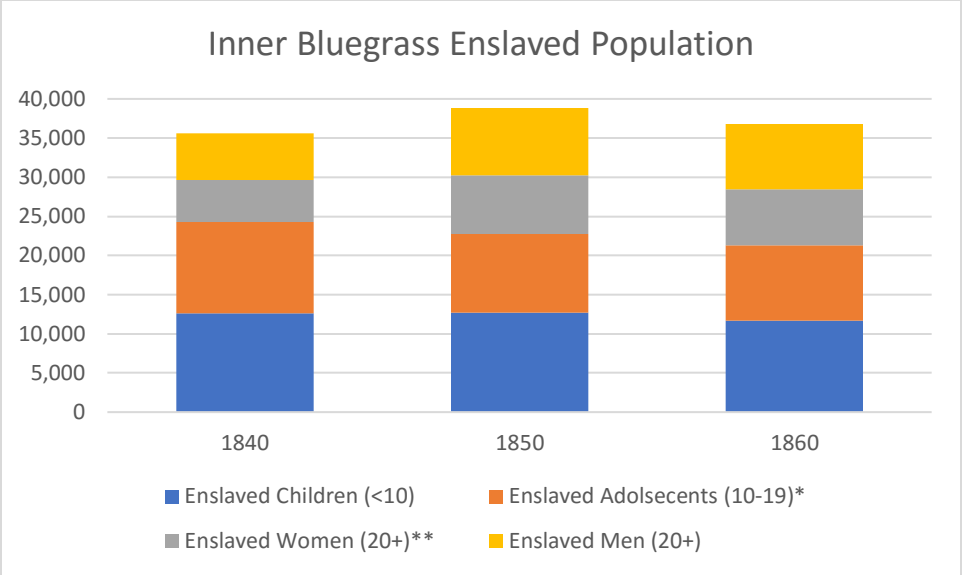

Figure 10.1 Inner Bluegrass Enslaved Population, 1840-1860
*1840 Census only designated between the enslaved aged less than 10 years and those less than 23 years, so the 1840 graph above skews toward under counting the "adults" as would have been enumerated in subsequent decades.

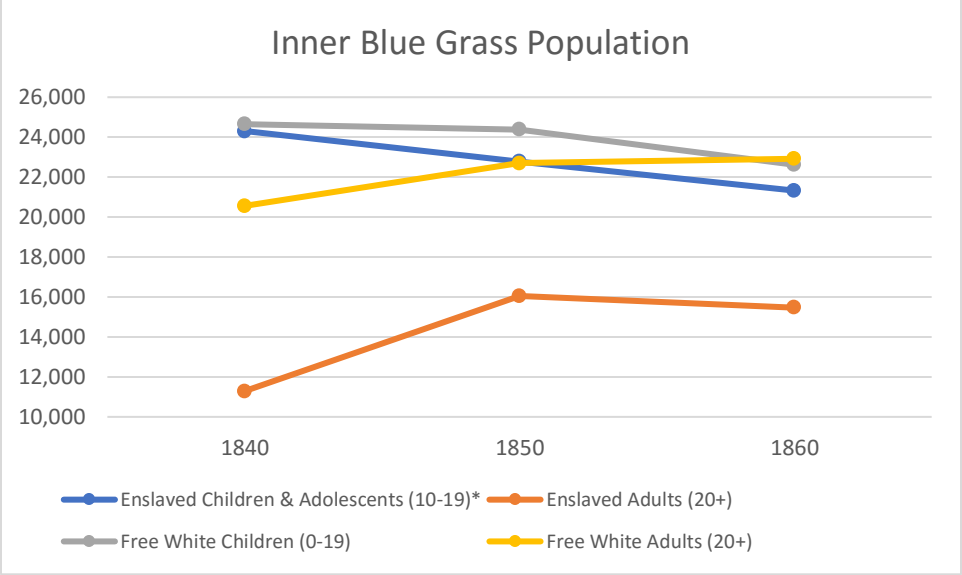

Figure 10.2 Inner Bluegrass Population, 1840-1860

The diversity of the agricultural, transportation, and economic landscapes of the Bluegrass demanded a dizzying array of labor skills. Enslaved Kentuckians mastered virtually all of these, though they reaped very few of the rewards. In large measure, black hands shaped each of the crops, species of livestock, landscape modification and

transportation improvement described in the previous chapters. Yet field hands, according to one formerly enslaved man, could only look forward "to the setting of the sun."[853] Others described a slightly less grim existence and highlighted communal events like corn shuckings, during which "the neighbors would come in and…we'd have big dances" that always included "a 'jug of licker.'"[854]

Enslaved women comprised between six and nine percent of the population during the antebellum era. Kentucky women held in bondage interacted with the local landscape in a variety of capacities, from laboring at row crop agriculture to processing the production of the environment for home consumption or sale at market. Many enslaved women worked in domestic capacities and they were often subject to year-long rental agreements.[855] Childcare, for both black and white children, often fell to enslaved women along with household work like cooking, laundry and cleaning. However, especially in small slaveholdings, women tasked primarily with domestic responsibilities often found themselves engaged directly in agricultural pursuits during high-labor points in the seasonal cycles like harvest and slaughtering livestock.[856]

As the emphasis on the youthfulness of the population suggests, enslaved Kentuckians' reproductive capacity played a major role in the economic value that

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[853] Lucas, 3.
[854] George Henderson, *WPA Slave Narrative Project, Kentucky Narratives, Volume 7*. Accessed via http://memory.loc.gov/cgi-bin/query/D?mesnbib:1:./temp/~ammem_ZyWN:: April 18, 2011.
[855] Keith C. Barton, "'Good Cooks and Washers': Slave Hiring, Domestic Labor, and the Market in Bourbon County, Kentucky" *The Journal of American History* Vol. 84, No. 2, 1997, 436-460.
[856] Lucas, 6-7.

slavery generated for slaveholders both directly, in the commodity markets for human labor or slave trade, and over the longer term via the labor in the local environment that sustained the profitable system of agriculture. While the question of whether or not Kentucky enslavers explicitly "bred" slaves for sale on southern markets has long bedeviled observers, but from a financial and agroecological perspective the intention matters less than the outcome. The fact that enslaved bodies represented important financial assets to Bluegrass enslavers meant that economic realities dictated by the agroecological demands of the antebellum system governed their lives. Economic transactions meant sale and many black Kentuckians found themselves traveling south to fill white Kentuckians' coffers.[857]

Enslaved men increased as a share of the local population from just over seven percent in 1840 to approximately ten percent by 1860, as seen in Figure 10.3.

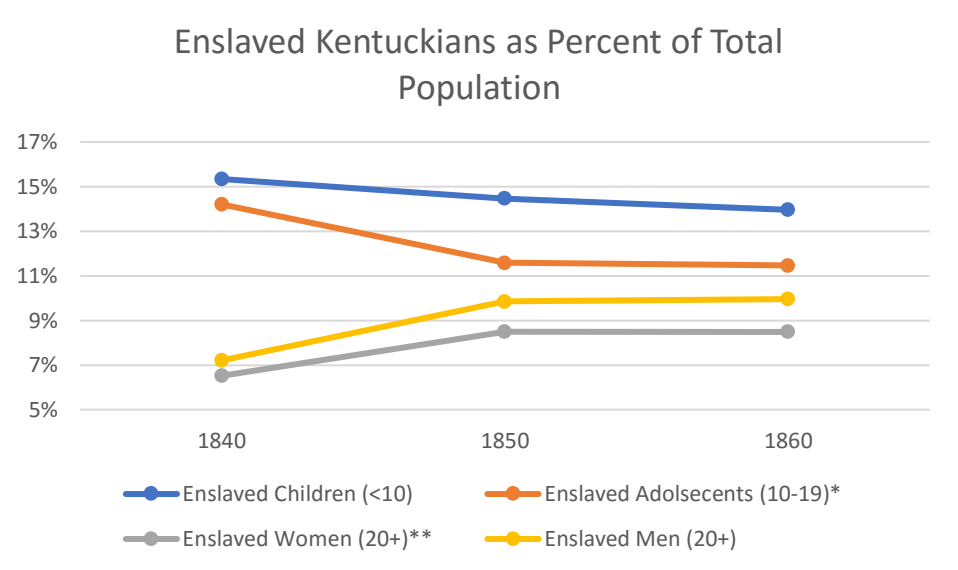

Figure 10.3 Enslaved Kentuckians as Percent of Total Population

[857] Lucas, 19-20.

On many farms and plantations throughout central Kentucky, black men took on the role of foreman and directed many of the day-to-day operations of their fellows. Joseph Sanford, for example, remembered taking a leadership role on his owners' farm and selling his produce across the Ohio River in Cincinnati. He directed his fellow slaves' labor in what he deemed a satisfactory manner until the arrival of a new white overseer upset the balance Sanford believed he had established, especially by demanding work on what had traditionally been the enslaved people's own time. Competing expectations of the amount of labor the enslaved might achieve in a single day stemmed from the different experiential landscapes inhabited by black Kentuckians and the whites who enslaved them. For example, from Sanford's perspective, earned by long years of hands-on experience in the agricultural landscape, the work he and his partner had done in a large corn field while his enslaver was off the property demonstrated that he had "worked hard to try to please [his] master," but to the white man whose perspective on the landscape was shaped by a market-oriented desire to maximize production it seemed insufficient and he rebuked Sanford that he could "plough more land in one day than [Sanford] and Dave both," and threatened to "thump" Sanford if the pace of work did not increase.[858]

Many black Kentuckians developed valuable skills that played significant roles in shaping the local agroecosystem. Men who worked as blacksmiths, masons, carpenters and a host of other positions created key pieces of the built environment that helped to shape the living features of the landscape to profitable ends. Those who trained horses,

[858]Drew, 361-362.

drove cattle, or broke and processed hemp into raw fiber or finished rope refined the natural production of the landscape to satisfy the demands of the market and maximize their enslavers' return on their investment in controlling their slice of the agroecosystem. In some cases, enslaved Kentuckians were able to leverage their skills to earn enough income to save to purchase their freedom, but as they paid their enslavers for the privilege and earned less than the full value of their labor, such relatively rare cases actually represented another way in which white enslavers maximized the share of the economic value they expropriated from their black neighbors.[859]

In urban centers across the Bluegrass, black Kentuckians comprised a relatively large portion of the population and labor force. While the largest number, almost 2,500 in 1860, lived in Lexington, they were equally or more important to the economies of smaller towns like Versailles where almost half of residents were enslaved.[860] Many of the manufacturing operations that supported the agroecosystem, such as brickyards, lumber mills, or coopers, utilized enslaved labor. So too did commercial ventures that transformed the products of the agricultural system into finished goods destined for distant markets like hemp bagging and rope manufactories and bourbon distilleries. These experiential landscapes differed dramatically from those of the grazing system, hemp fields, or woodlands of the rural districts, yet they contributed some of the distinguishing characteristics to the overall mosaic of the Bluegrass agroecosystem,

[859] The brother of Aby B. Jones of Madison County, for example, earned enough money operating a mill for his owner that he eventually purchased three of the Jones men, but only after years of profitable service to their enslaver. Drew, 150.
[860] Lucas, 182-183.

especially by demonstrating the connections between the urban and rural iterations of slavery and the accompanying environments.

Lurking uncertainty tinged every aspect of the experiential landscape inhabited by enslaved Kentuckians. The possibility of sale and the stark reality of life as property never completely faded. This chilling feature of the labor system meant slave markets, which were relatively small physical spaces, took on outsized significance in the experiential landscapes of black Kentuckians.[861] Places like the Cheapside market in downtown Lexington demonstrated the harsh truths of chattel slavery, where the cold economic calculations of white Kentuckians governed the futures of their black counterparts.[862]

Amid the uncertainty, black Kentuckians carved out spaces of relative autonomy and mutual support, both in and around "slave cabins" and within the broader landscape. Many commenters, from the nineteenth century to the twenty-first, have tended to note the relatively adequate housing that many enslaved Kentuckians inhabited, yet even if they were "better lodged" than much "of the peasantry in Britain"

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[861] Isabella Strange Trotter, *First Impressions of the New World* (London: Longman, Brown, Green, Longmans & Roberts, 1859) pg. 252-254.

[862] Walter Johnson, *Soul by Soul: Life Inside the Antebellum Slave Market* (Cambridge, Mass: Harvard University Press, 1999). Johnson's account focuses on the New Orleans slave market, but his broader points about the ways in which the slave markets revealed the heart of the antebellum institution also apply to central Kentucky. In fact, given the flows of enslaved black bodies across the south, many of those sold in New Orleans had likely also climbed the auction block in Lexington.

or their "cabins appear little different from those of many white families," these micro-landscapes held different meanings to the enslaved inhabitants.[863]

Similar comparisons juxtaposed the diets of black Kentuckians with their poor white neighbors and those of the enslaved in other American regions. However, these assessments do little to explicate the landscapes that produced the calories and their broader significance.[864]

Limited access to and freedom of movement through the landscape marked enslaved Kentuckians experience of the world as distinct from that of their white counterparts. State law required the enslaved to carry passes written by whites whenever they left their enslavers' property and stipulated a penalty of ten lashes for those found in violation.[865] Yet, enslaved Bluegrass residents sometimes enjoyed greater freedom of movement in the landscape, and applied their own meanings to the spaces during the brief respites. Bound men and women found opportunities in the landscape, whether for shoring up their diet, for psychological relief from the pressures of enslavement and exploitation or even to accumulate financial resources with an eye toward their eventual freedom.[866] George Henderson of Woodford County only fondly

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[863] John Melish, *Travels through the United States of America* (London: George Cowie and Co., 1818), 415; Lucas, 13.
[864] Ibid., 14-16.
[865] Ibid., 29.
[866] Scott Giltner,"Slave Hunting and Fishing in the Antebellum South," *To Love the Wind and the Rain: African Americans and Environmental History,* Dianne D. Glave and Mark Stoll, eds. (Pittsburgh: University of Pittsburgh Press, 2006), 21-36; Martha Wharry Turner, "Hiding, Hunting and Habitat: An Environmental Re-Analysis of the Slave Narratives," MA Thesis, Boise State University, 2012 http://scholarworks.boisestate.edu/td/303 accessed February 12, 2017.

remembered a few aspects of his enslaved childhood, but they included eating "all kinds of wild food" such as fish from local creeks "fried in hot grease" and "possum and rabbits baked in a big oven."[867] The tinge of nostalgia that seems to come through in Henderson's recollection likely reflects the ways in which the natural landscape often served as a space in which the enslaved strengthened family and community bonds; Henderson coupled his memory of the "wild food" with images of himself as a child, when he "would ride on his [father's] back…feet in his pockets" while hunting.

William Hayden of Scott and later Franklin County illustrated a way some enslaved Kentuckians turned the local environment to their own advantage. Hayden turned fish from the Kentucky River into "a considerable sum of money, without, in the least, encroaching on [his] master's time."[868] Hayden's market fishing highlights both the economic resources to be found in the natural world and the distinction between his "master's time," when he worked within the cultivated sections of the agroecosystem, and his own time, in which he gleaned valuable commodities from the surrounding ecosystem and sold them to ready white buyers. <Hayden finished/>. That the activities described by Henderson and Hayden typically occurred outside of white supervision meant they also served as a respite from the psychological toll of direct

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[867] George Henderson, *WPA Slave Narrative Project, Kentucky Narratives, Volume 7*. Accessed via http://memory.loc.gov/cgi-bin/query/D?mesnbib:1:./temp/~ammem_ZyWN:: April 18, 2011.

[868] William Hayden, *Narrative of William Hayden, Containing a Faithful Account of His Travels for a Number of Years Whilst a Slave, in the South*. (Cincinnati: No Publisher Listed, 1846), 25-26. Accessed via http://docsouth.unc.edu/neh/hayden/hayden.html April 18, 2011.

control. Hayden, and many others in similar scenarios, found opportunity in the natural world and the means to resist their exploitation.

Bourbon County Bondage

Focusing on African-American experiential landscapes in Bourbon County can reveal the connections between slavery and the antebellum Inner Bluegrass agroecosystem in greater detail.[869] In 1850, African Americans outnumbered whites in the county, with fewer than 250 of the more than 7,000 qualifying as free. In the sample of rural slaveholders, more than 60 percent enslaved five or fewer people, slightly more than 20 percent enslaved between six and ten people, 13 percent enslaved between 11 and 25 people and just over 2 percent enslaved between 25 and 50 of their fellow Kentuckians.[870] This sample confirms the general descriptions of Inner Bluegrass slavery that emphasize the relatively small slaveholdings in the region in comparison with those of the plantation South. Edwin Bedford fell within the second tier of slaveholders and the experiences of the six Kentuckians in 1850 he enslaved reflect common patterns as they labored in a diverse agricultural landscape. Those Bedford enslaved worked with a wide variety of domesticated crop species including corn, wheat, rye, oats, hay, barley, hemp, orchard and garden plants, as well as livestock including horses, mules, cattle,

[869] To discuss the African-American experiential landscapes of Bourbon County in greater detail, this section analyzes all the black residents of Paris, the county seat and largest town, all the black residents of Millersburg, the next largest town, and a ten percent sample from each rural precinct by including every tenth page in the original census returns. All returns were accessed via ancestry.com. It also incorporates an account from a single farm, that of Edwin Bedford as recorded in his journal, to illustrate many of the trends revealed by the census figures and secondary literature.

[870] None of the slaveholders in the sample enslaved more than 50 people, though Brutus J. Clay held 88 men, women, and children in bondage.

swine, sheep and chickens.[871] They also performed general agricultural labor like grubbing stumps and mending fences and domestic work like preparing meals and washing laundry.

The practices of slave loaning and hiring that characterized the institution in the Bluegrass spread the influences of enslaved labor further across the landscape than the above figures might indicate. Those African Americans enslaved by Bedford, for example, performed essential labor on his neighbors' and friends' land every year and those enslaved by his neighbors often help with Bedford's harvests. A single enslaved Kentuckian often harvested wheat on three or more farms in a single year, which expanded the amount of grain that could be produced by white farmers in the county.[872] Similarly, other labor-intensive portions of the agricultural calendar like the yearly hog slaughter in late autumn often saw black Kentuckians working on a number of farms.[873]

Inner Bluegrass slavery also incorporated market principles to govern bound labor via an extensive system of rental agreements. Often these arrangements lasted from Christmas to Christmas. Bedford's diary entry for December 25, 1862, for instance, noted that he "Sent Lotty, Rilla Berry, Jo & Berry home" and a year later he wrote of having "hired Lotty and 3 children…for victuals and clothes."[874] In this instance Bedford hired the same enslaved Kentuckians year to year, but he also rented laborers as he

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[871] Edwin G. Bedford Diaries and Papers, 1812-1902. University of Kentucky Special Collections, Lexington, Kentucky. Hereafter cited as Bedford, Diary.
[872] For example, see Bedford, Diary, July 24, 1862, July 8, 1863, July 30, 1863.
[873] Bedford, Diary, November 9, 1863.
[874] Bedford, Diary, December 25, 1863.

judged his requirements to have expanded. This was the case with "a Negro Boy name[d] Jefferson" who Bedford paid $11.50 to rent from Peter Hedges for the year 1863. Bedford also agreed to "clothe Jefferson" according to specific standards and "treat him humanely."[875] While it might be tempting to read benevolent or at least paternalistic motives onto the clothing requirements or the stipulation that Jefferson be treated "humanely," the strongest evidence supports reading this as an economic consideration in which Hedges sought to protect his investment (Jefferson) from harm and offset the cost of his care on the renter who stood to profit from Jefferson's labor for the year. This was the cold economic logic that governed slavery in the Bluegrass and helped shaped the agroecosystem that it supported.

Yet the same logic that supported slave loaning, hiring and renting as ways to efficiently distribute bound labor where it could be profitably employed in the diverse landscape also created a degree of African American mobility across the landscape that undermined whites' supposed control over black bodies. Even amidst the upheavals of the Civil War, for instance, Bedford and his neighbors felt comfortable enough with their usual practice of loaning each other labor that they continued to send those they enslaved to help with each other's harvests. Black Kentuckians also continued to haul crops and drive livestock between farms and to market without white supervision. These types of traditional exceptions to the nominal rules governing black movement stemmed from the specifics of the agroecosystem of the Inner Bluegrass and particularly

[875] Contract between Edwin Bedford and Peter Hedges. Bedford Papers, Box 3. Date missing.

the peaks and valleys of labor requirements, yet created the conditions in which enslaved Kentuckians developed and strengthened ties of community and communication in the years prior to emancipation.

The demographic profile of the enslaved of rural precincts of Bourbon County provides further detail to the patterns identified in the county and region-level census statistics discussed above. The enslaved population of the county in 1850 was strikingly young, averaging less than 17.5 years of age in the sample. More than 40 percent of the enslaved were younger than ten and more than 27 percent were between 11 and 20. Less than 16 percent were in their twenties, just over 9 percent were in their thirties and fewer than 8 percent were older than 40. The slave traders enumerated among the white residents of the county suggests that sale of "surplus" slaves helped account for the skewed age ratios, but the difficulty of life for the enslaved in the Bluegrass agroecosystem also played a part.

In 1850, the enslaved populations of Paris and Millersburg demonstrated some differences from that of the surrounding rural precincts. An even greater percentage of slaveholdings numbered less than five and included a larger portion of enslaved women. These populations were also slightly older on average and a larger percentage lived into their forties and beyond. Taken together, these differences suggest that more of those Kentuckians enslaved in Inner Bluegrass towns were engaged in domestic work and subjected to slightly less physically taxing labor expectations than those in the surrounding countryside.

By the 1860 census, the black portion of the Bourbon County population had fallen to 47 percent, with a slight decline in the overall number. Comparing a sample of the rural precincts from 1860 to those of the previous decades suggests some of the trends in antebellum Bluegrass slavery. The portion of slaveholders who owned fewer than six people fell by more than 14 percent to less than 47 percent and the percentage who enslaved between six and ten people jumped to more than 25 percent, as did the percent who enslaved between 11 and 25 of their fellow Kentuckians. Edwin Bedford owned two more people in 1860 than ten years previously, reflecting the type of individual expansion of investment in human property that cannot be fully captured in averages and arbitrary categories.[876] These trends suggest a concentration of economic resources at the top tier of the agroecosystem, which also shows up in the landholding and crop production data available from the census.

Free Blacks in the Bluegrass

A minute portion of the black population in the Bluegrass enjoyed at least nominal freedom. Figures 10.4 and 10.5 give some idea of how small the group of free black Kentuckians remained throughout the antebellum era. Never reaching two percent of the population, these Kentuckians often lived precarious existences.

[876] As in the 1850 sample, the 1860 rural sample did not capture the largest slaveholder in the county, which remained Brutus J. Clay who expanding his holdings from 88 to 132 during the decade.

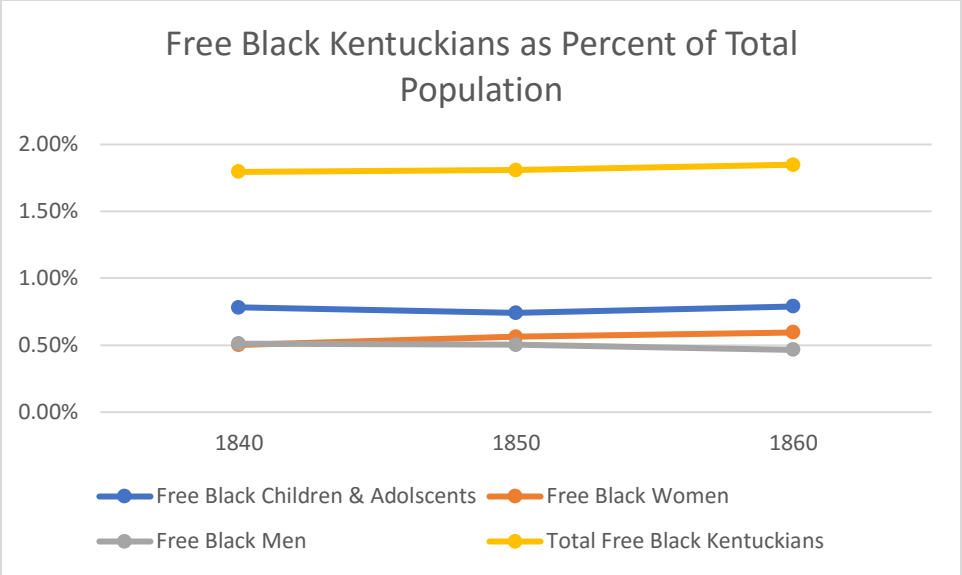

Figure 10.4 Free Black Kentuckians as Percent of Total Population

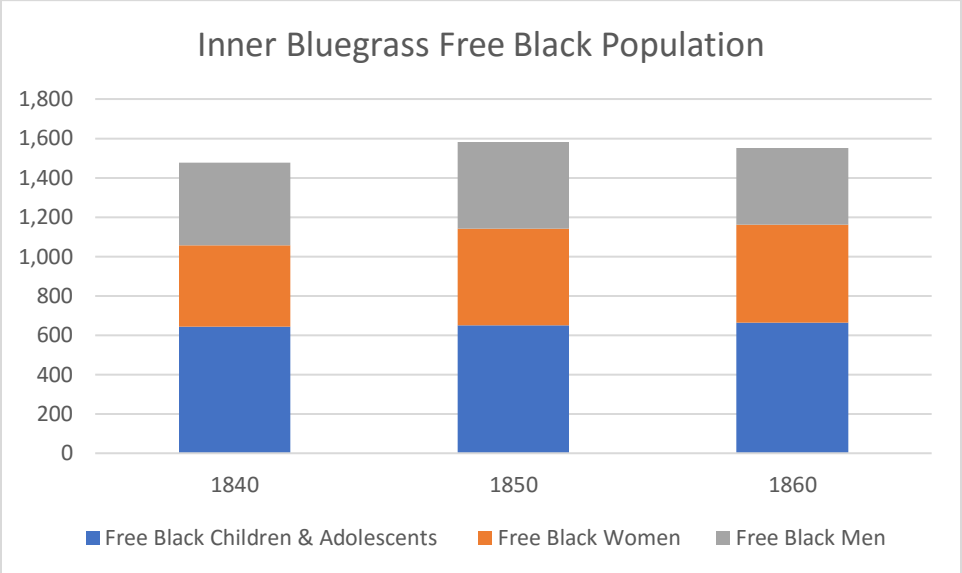

Figure 10.5 Inner Bluegrass Free Black Population

In places like Bourbon County, where only three hundred free African Americans lived in 1860, free people of color existed in liminal spaces within an economic system that typically equated people of color with slavery. Yet, in places like Paris, there were small and growing communities of free black Kentuckians during the antebellum decades who inhabited distinct experiential landscapes. In 1850, 46 free blacks resided

in the Bourbon county seat, nearly two-thirds of them women. At an average of 26 years old, this population was significantly older than those of any enslaved group in the county. Four individuals, including two women, possessed a total of $2,000 in real estate. By 1860, this figure had grown by a multiple of five, along with free black personal property accumulation in Paris in excess of $10,000. By the later date, the free black population of Paris had expanded to nearly 150 individuals and included such skilled and semi-skilled professionals engaged in the agroecosystem as a brickmaker, horse breakers and trainers, rope maker and stone mason, in addition to the more general categories of "laborer" and "servant." Appraised in economic terms, Jefferson Porter experienced the greatest degree of success among the free black population of Paris, accumulating $9,000 in personal wealth. That he earned his money as a "confectioner" after being manumitted and receiving a bakery and shop in the will of Lucy Porter who died in 1846 speaks to the highly unusual circumstances that allowed his exceedingly rare prosperity. Porter's life, indeed the experiences of the antebellum free black community of Paris, serve primarily as the exception to the rule of African-American enslavement in the Bluegrass.

The small number of black Shakers at Pleasant Hill on the Kentucky River demonstrate some of the ways in which legal status influenced how individuals experienced the landscape.[877] In a distinct social and theological landscape for the Bluegrass region, black Shakers shared more aspects of their day-to-day lives with their

[877] Vickie Cimprich, "Free and Freed Shakers and Affiliates of African Descent at Pleasant Hill, Kentucky" *Register of the Kentucky Historical Society* Vol. 111, No. 4, 2013, 489-523.

white brothers and sisters than was typical for the era. Yet, they labored at familiar capacities in broadly similar agroecosystems to those in the surrounding countryside. Whether black Shakers came to Pleasant Hill when their owners converted and gave up their individual property, as free men or women of their own choice or via conversion followed by purchase, they took active and equal roles within community.[878] Rather than an exploited "other" population, at Pleasant Hill, black Kentuckians took full part in the community and enjoyed equal, communal access to the fruits of their labor. The agroecosystem cultivated on the thousands of acres of Shaker land on the south bank of the Kentucky River resembled the most advanced agricultural units of the antebellum Bluegrass in its ecological and economic aspects, despite the dramatically different labor regimes that supported it.[879]

The largest number of free African Americans in the Inner Bluegrass, though still small relative to the number of enslaved, lived in Lexington, where six hundred free black Kentuckians resided in 1860.[880] As one black Lexingtonian remarked, he "would rather starve as a freeman than remain a slave."[881] Relegated to the margins of the economic system, free blacks nonetheless valued their relative autonomy to direct their

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[878] Mercer County slave Jonah Crutcher, for example, converted to Shakerism by 1840 and continued to worship with the Pleasant Hill community despite his enslavement and the group purchased his freedom in 1859 when his owners threatened to sell him south. Cimprich, 496.

[879] For example, the Shakers actively marketed their agricultural surplus, including selling seeds in paper packages, and participating in both local markets and distant markets via the river connections made possible by the Kentucky, Ohio and Mississippi Rivers. They also produced hemp in substantial quantities, which undermined their white neighbors' belief that only black Kentuckians could cultivate the crop.

[880] Kennedy, *Population of the United States in 1860,* 182.

[881] Trotter, 254.

own contributions to the agroecosystem and made substantially different choices than those forced on their enslaved neighbors.

Whites in the Bluegrass

The majority of white residents of the Bluegrass did not own slaves, vast tracks of land, or celebrated livestock. In fact, most whites owned relatively little property and often rented the land they farmed or performed wage labor. By the antebellum years, the success of the slave-reliant portions of the agroecosystem had facilitated a concentration of wealth, and particularly land, in the hands of local elites. In Bourbon County for example, the top ten percent of households owned more than one-third of both county wealth and land in 1850, while the bottom fifty percent of white households owned less than one fifth of each. This pattern underscores the changes since the frontier period when settlers hailed Kentucky as "a good poor man's country;" by the mid-nineteenth century this descriptor no longer applied as poor Kentuckians found few avenues to economic prosperity.[882] In fact, so many "absquatalized" meaning to abruptly pack up and leave for brighter economic prospects to the west, that the term became known nationally as a "Kentucky phrase."[883] The frequency with which young and impoverished whites moved away from the region contributed to the slight decline in overall white population during the antebellum era and reflected the narrowing of opportunities available within the agroecosystem, even to many whites.

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[882] Caleb Wallace to James Madison, July 12, 1785, in Hutchinson, *Papers of James Madison*, 8: 321 quoted in Friend, *Frontiers*, 161.
[883] C. B. Marryat, *A Diary in America with Remarks on Its Institutions* (New York: Wm. H. Colyer, 1839), 148.

Poor whites labored with their hands, either working directly on the landscape or with items produced by the agroecosystem. Their efforts to cultivate a subsistence or even to accumulate a small competency and move into the middling orders often foundered on the difficulty of procuring land amid their engrossing and better financed neighbors. Those operating their own farms, whether on small plots of their own or on rented acres, applied agricultural practices that resembled those of small farmers throughout antebellum America, with an emphasis on production for home consumption with crops like corn and animals like chickens, hogs and dairy cattle.

Those working for wages in productive units owned by other white men often found themselves caught between cultural ideas that equated independence with landownership, the economic need to earn cash to support themselves and their families, and the competitive advantages of enslaved labor. Working men of the Bluegrass often complained about these features of the agroecosystem and the relatively powerless black workers, both enslaved and free, often served as the scapegoat for their economic frustrations. While poor whites' experiential landscapes of the antebellum Bluegrass could seem narrow and unpleasant in comparison with their better connected white neighbors and they might complain about the depressing effect of competing against slave rentals, poor whites nevertheless possessed the important recourse of "absquatulating" and seeking brighter prospects elsewhere.

Many white families with more resources however, occupied the middle strata of the Bluegrass economic system, both farm families and those engaged in related sectors. These men and women often worked their own land and produced many of the

materials that supported their own lives, but typically also engaged in market-oriented agriculture and their fortunes could rise and fall with the price of local commodities. In some instances, they could rise economically by finding a niche within the agroecosystem, as was the case with many Irish American stonemasons who constructed many of the rock fences built during the antebellum years. Most who cultivated their own crops raised the standard regional commodities like corn and wheat that were grown on virtually every agricultural unit in the Bluegrass and many dedicated pastures to hay to support their livestock, while fewer grew more specialized crops like rye or hemp. Women's labor contributed to virtually every aspect of middling agricultural enterprises, though often in supporting roles that escaped the notice of male observers.[884]

While not so heavily invested in slavery as their elite neighbors, many middling whites nonetheless tapped into unfree labor markets. Small slaveholdings typified more white households than large and other whites only occasionally rented enslaved labor. The practice of slave loaning outlined above also frequently brought non-elite whites into contact with the institution and allowed those without large investments in the institution to nonetheless benefit from its existence.

[884] Richard Sears, "Working Like A Slave: Views of Slavery and the Status of Women in Antebellum Kentucky" *The Register of the Kentucky Historical Society* Vol. 87 No. 1 (1989), 1-19; Melissa A. McEuen and Thomas H. Appleton, eds., *Kentucky Women: Their Lives and Times* (Athens, GA: University of Georgia Press, 2015).

Elite white women often moved in a rather constrained sphere of the local landscape, though their interactions within that purview might extend quite deeply.[885] Women like Lucretia Clay managed substantial dairy operations and oversaw the cultivation of large garden plots. While some left the hands-on work to others, many took an active interest in household production like canning preserves or making cheese. Wealthy white women often had the luxury of working at nonessential tasks and enjoyed a greater freedom of mobility through the landscape than men and women whose labor responsibilities kept them more tightly bound to the biological rhythms of a particular plot of land. Their experiential landscapes of the Bluegrass often focused on pleasant, social features of the system that were underwritten by the labor of others. In many cases, white women played active roles in directing enslaved labor.

As we have seen, a relatively small number of white men controlled the legal and economic structures upon which the entire antebellum agricultural edifice rested. Their experiences of the landscape held tremendous significance for the day-to-day lives of the Bluegrass residents under their supposedly paternalist authority. Wealth and status allowed elite white men to dictate the ways in which other people interacted with the local environment. While the decisions of both the small landowner and the large affected the composition of biological communities on their land, those of a man in possession of five hundred acres carried ten times the significance of the man who owned fifty. Richard Troutman's study of antebellum agriculture in Kentucky identified a

[885] Margaret Ripley Wolfe "Fallen Leaves and Missing Pages: Women in Kentucky History," *Register of the Kentucky Historical Society* Vol. 90 No. 1 (1992), 64-89.

great deal of inequality in the distribution of financial resources across the state with the group of slaveholders who owned more than ten people, which constituted less than one-quarter of slaveholders, controlling a greater portion of the state's wealth and land than all nonslaveholders combined.[886] Evidence suggests this pattern characterized the antebellum Inner Bluegrass agricultural system as well. In Bourbon County, for example, the top ten percent of white households controlled more than a third of county land, total wealth, livestock and crop values throughout the antebellum era.

Many members of the Bluegrass elite looked to agricultural reform and voluntary associations as avenues for refining their control over the landscape to maximize its long-term profitability. Their experiential landscapes encompassed a wider view than many of their neighbors as they connected to regional and national markets and intellectual currents. Their reformist ideas led them to pool their resources to import the highest quality livestock and tap into international markets, while they created county and state-level agricultural societies to encourage "improved" practices. These groups facilitated changes in the composition of the regional fauna populations and also opened up social and cultural spaces focused on market-oriented agriculture.

In some rare cases, elite white central Kentuckians took up nominally antislavery positions, yet the agroecological imperatives of the system severely limited the range of options they found to be acceptable. The importance of black bodies as both sources of labor and embodied capital undermined moral arguments against the institution and bolstered the racist assumptions that supported the system. The American Colonization

[886] Troutman, 39.

Society and members of the prominent Clay family provide illuminating examples of how tepid Kentucky antislavery efforts foundered on the perceived need for slave labor for the profitable operation of the agroecosystem. Cassius M. Clay, cousin of Henry Clay and son-in-law of prominent breeder Elisha Warfield, stood out from his peers in his denunciations of slavery, but weighed against the abolitionist arguments advanced by some white northerners and black Americans across the country, Clay's "antislavery" positions reveal the limitations imposed by the worldview engendered by his position within the overall agroecosystem.[887]

Shared Bluegrass Landscapes

Despite the differences in the experiential landscapes inhabited by the diverse groups sketched above, certain features of the local environment influenced all residents, even if they caused disproportionate impacts. On the broad scale, every central Kentuckian encountered the same seasonal patterns in climate, length of day, and disease. On a personal level, Kentuckians often shared the immediate environment with folks from a range of statuses and background; while distinct experiential landscapes characterized the Bluegrass agroecosystem, they were not segregated landscapes. The diversity and flexibility of the labor regime brought Kentuckians of all

[887] David L. Smiley, "Cassius M. Clay and Southern Abolitionism" *The Register of the Kentucky Historical Society* Vol. 49, No. 169 (1951), 331-336; Lowell H. Harrison, "The Anti-Slavery Career of Cassius M. Clay" *The Register of the Kentucky Historical Society* Vol. 59, No. 4 (1961), 295-317; Wallace B. Turner "Abolitionism in Kentucky" *The Register of the Kentucky Historical Society* Vol. 69, No. 4 (1971), 319-338; Jeffery Brooke Allen "Did Southern Colonizationists Oppose Slavery? Kentucky 1816-1850 as a Test Case" *The Register of the Kentucky Historical Society* Vol. 75 No. 2 (1977), 92-111.

stripes into the same physical spaces at times, even if the coming together remained temporary and contingent.

One important aspect of the shared landscape was the disease environment. The cholera epidemic of 1833 provided a clear example of both the shared risks and the disproportionate impacts created by the structures of the agroecosystem.[888] When this disease burned through the city of Lexington, all segments of the population felts its effects and no one was immune from its touch. Yet black Kentuckians nonetheless bore the brunt of the costs inflicted because they lacked the resources to remove themselves from its path and their lowly station in the labor hierarchy of the era meant unsanitary work during the outbreak often fell to them.

As the nation careened toward disunion and civil war over the expansion of slavery and the election of 1860, central Kentuckians adopted a wide range of perspectives and many justified their position based on their understanding of how best to organize the agroecosystem. The future of African-American labor as a component in that system figured prominently in their thoughts. To whites habituated to viewing their black neighbors primarily as laborers with clearly defined, subordinate roles within the agroecosystem, the war years and the looming specter of emancipation seemed to promise upheavals for the regional landscape. Some Kentucky slave owners initially sided with the federal government on the grounds that it would best protect their investments in the human cogs of the regional agroecosystem and responded to the

[888] L. P. Yandell, *An Account of Spasmodic Cholera as it appeared in the city of Lexington in June, 1833* (Lexington: Transylvania Medical Journal, 1833).

evolution of Union war aims to include emancipation with angry denunciations.[889] Even while the conflict still raged, many whites looked to secure their access to black labor and shore up their authority in order to maintain the broad features of the agroecosystem under slavery. To black Kentuckians, however, the promise of emancipation lay in its potential to force a fundamental restructuring of the agroecosystem in ways that would provide greater opportunities for economic independence and advancement. "Freedom" implied the right to determine one's place within the landscape and many black Kentuckians joined the Union army or fled their enslavers in hopes of exercising this right. Whether they hoped to establish their own Bluegrass farms, move to local urban centers or ply a trade for wages, black Kentuckians sought greater control over how they interacted with the agricultural landscape than had been possible under slavery. These conflicting visions for the future of the agroecosystem complicated the war years in the Bluegrass and shaped the new agricultural landscapes that emerged over the rest of the nineteenth century.

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[889] Patrick A. Lewis, *For Slavery and Union: Benjamin Buckner and Kentucky Loyalties in the Civil War* (Lexington: University Press of Kentucky, 2015).

Chapter Eleven: Conclusion: Legacies of the Slave-Based Bluegrass

By 1861, the influences of generations of central Kentuckians could be seen across the landscape. But the roles that future generations would play seemed an open question. In a sense, the agroecosystem served as a lens through which Kentuckians interpreted their place in the landscape and the broader economy. Different cultural backgrounds and lives spent in the region, between the formerly enslaved and the former enslavers, between elite whites and their poor neighbors, between men and women, and along innumerable other distinctions, created different expectations for how the physical world should be structured. In the coming years, many whites resented and resisted their black neighbors' attempts to assert a greater degree of autonomy over their place in the agricultural landscape. The racial violence that marred the region during the Civil War and the rest of the nineteenth century often stemmed from questions of agroecological significance like how labor should be organized and what crops would be cultivated. Fundamental conflicts over how Kentuckians should work with and relate to the land played out in the realms of economics, politics, and interpersonal relationships. Ultimately, as wage labor, tenancy, and family-based productive units replaced slavery, the crop mix and physical composition of the landscape underwent a transformation. Hemp production, for example, entered a precipitous decline with the elimination of slavery and tobacco production took root as a viable cash crop that could be grown by tenants who refused to grow the hemp that

was so strongly associated with enslaved labor.[890] In this case, as in many others throughout the previous century, changes in human culture sparked changes in the Bluegrass environment.

Yet many features created by the slave-based agroecosystem of the Inner Bluegrass survived long after the institution legally ended. The regional agricultural landscape continued to bear striking similarities to the antebellum system through the remainder of the nineteenth century, particularly with the continued reliance on high-value livestock raised in the grazing system of bluegrass pastures and a diverse cast of crops. The stone fences that lent an air of permanence, stability and prosperity to antebellum farms continued to spread across the region, as did improved transportation connections that enhanced market access for commercial farmers. The Bluegrass remained largely agricultural well into the twentieth century and broad features of the landscape continued to share similarities with that first established via slave labor during the late eighteenth and early nineteenth centuries. Black Kentuckians continued to play important, but underappreciated, roles in maintaining that agricultural environment even as the regional reputation increasingly stressed the fast racehorses, strong bourbon and genteel landscapes with roots in the exploitation of slavery. In the first decades of the twenty-first century, the Inner Bluegrass population remains invested in their agricultural heritage and future. They celebrate, and in some cases tax

[890] Andrew P. Patrick, "Inner Bluegrass Agriculture: An Agroecological Perspective, 1850-1880" University of Kentucky, MA Thesis, 2012.

themselves to protect, agricultural landscapes that harken back to the nineteenth century.[891]

Fayette County is an illustrating example. By the post-World War II era, county residents looked on increasing suburban sprawl of Lexington as a threat to the rural landscape. In response, the combined city-county government instituted the nation's first Urban Service Boundary (USB) that limited the expansion of suburban infrastructure into the surrounding countryside. The goal of limiting sprawl and encouraging infill was strongly linked to the value residents placed on the agricultural economy and scenery. In the twenty-first century, the county instituted a Purchase of Development Rights program (PDR) that buys the legal right to future development on rural tracts to keep them in agriculture use in perpetuity. The program enjoys widespread support in the local community, with more than four in five residents opposing an expansion of the USB further out into the rural sections of the county.[892] These cultivated landscapes, both those protected by the PDR and those outside the voluntary program, continue to play a major role in the regional economy, both in

[891] For example, the Lexington-Fayette Urban County Government's Purchase of Development Rights Program (PDR) protects qualifying agricultural land with in the county from non-agricultural development in perpetuity. The program began in 2001 and had secured legal right to prevent development on 15.7 percent of county land by 2015. The program aims to protect 50,000 total acres for exclusive agricultural use, which would constitute 27.3 percent of county land, in order to "secure a critical mass of protected farmland for the general agriculture, equine and tourism industries" by conserving and protecting "the natural, scenic, open space, historic and agricultural resources of rural Fayette County." See "Purchase of Development Rights" http://www.lexingtonky.gov/index.aspx?page=497 (accessed February 10, 2016).
[892] Fayette Alliance, "Major Studies," fayettealliance.com, accessed April 16, 2017.

traditional agricultural sectors and in a growing agro-tourism industry.[893] The cultural value placed on these landscapes reflects a deep and widely shared appreciation for their significance to regional history and prosperity, yet celebrates a rather one-dimensional understanding of their long lineage. This dissertation complicates that image. Not only did specific vestigial environmental features remain, the agroecological imperatives of the vanished slave-reliant system still shaped the regional culture and trajectory.

Bluegrass Capital focused on the connections between cultural and environmental factors in central Kentucky to highlight the significance of the dialectical relationship between local ecology and human activity for regional and national history. As we have seen, the seemingly natural characteristics that lured white American settlers to the region, including the remarkable number of game animals and diverse ecosystems, were in fact the product of complex interactions between Natives and the landscape over the previous centuries. Two decades later, the environmental and commercial geography of early Bluegrass agriculture contributed to upheavals in the Early Republic. Agroecological imperatives influenced separatist rumblings and imperial plots amid the uncertainty of westward expansion on a continent still claimed by various European powers. But visions of central Kentucky's agricultural potential simultaneously

[893] Kentucky Thoroughbred Owners and Breeders, Fayette County Farm Bureau Federation, and Fayette County Alliance to Mayor Jim Gray, March 16, 2017. Accessed via fayettealliance.com "Ask Mayor Gray to fully Fund PDR for Fiscal Year 2018," April 15, 2017.

gave strength to American demands for access to the Mississippi and trade in New Orleans in the years before the Louisiana Purchase.

The dissertation's focus on the agricultural landscape demonstrates how the demand for profitable market opportunities also worked in favor of political independence from Virginia and the retention of slavery during the 1790s, which continued as a key instrument of environmental modification into the nineteenth century. The Atlantic connections engendered by the commercial agriculture of the Bluegrass contributed to Kentuckians' nascent American nationalism and influenced their participation in clashes like the War of 1812. Henry Clay's grand vision of an American System of internal improvements to link distant regions and diverse economic sectors into a coherent national economy drew on his experience of the Bluegrass agroecosystem, and the local compatibility of slave labor with a thoroughly modern commercial orientation. A generation later, amid the heated conflicts over the expansion of slavery, the perspectives created by the slave-based agroecological context prevented many white Bluegrass residents from conceiving of renouncing either Union or slavery. Yet in the same context, black central Kentuckians easily envisioned a future without bondage and many acted decisively to bring it into reality. Throughout each of these eras, the evolving relationship between the local environment, enslaved Kentuckians, and enterprising whites shaped the distinctive agroecosystem whose influence can still be seen in modern Bluegrass landscapes.

The study demonstrates the complexities of the relationships between the natural world and cultural influences in central Kentucky, while highlighting the extent

to which agroecological imperatives shaped the ways people interacted with their environment. It paves the way for a clearer understanding of the connections between Bluegrass slavery, Kentucky's capitalist development, and ecological change and suggests fruitful avenues of inquiry for future research. While it has not answered every relevant question about the antebellum Bluegrass landscape, it usefully complicates the regional historiography and encourages future scholars to take environmental factors seriously in their appraisals of central Kentucky history. The agroecosystem perspective trains the focus on the complicated dynamics through which ecological and cultural influences shaped the central Kentucky landscape. By bringing environmental history into conversation with recent work on slavery and capitalism, the dissertation reveals the benefits of this type of cross-pollination. Most fundamentally, *Bluegrass Capital* argues for a deeper appreciation of the intricacies of contributing factors to the celebrated agricultural landscape and the permeability of the distinction between human and natural influences on regional environmental history. The local landscape was never a static backdrop to human events, passively awaiting modification, instead the Bluegrass environment constantly evolved in response to shifting influences, the results of which framed subsequent human actions. This dialectical relationship underlay the antebellum landscape and continues to shape local ecology into the twenty-first century.

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Bibliography

Periodicals:

American Railroad Journal
Country Gentleman
Daily Journal (Louisville)
De Bow's Review
Farmers' Register, A Monthly Publication Devoted to the Improvement of the Practice, and Support of the Interests of Agriculture
Frankfort Commonwealth
Franklin Farmer (Lexington)
Kentucky Farmer (Frankfort)
Kentucky Gazette
Louisville Public Advertiser
Niles Register
Observer and Reporter (Lexington)
Prairie Farmer
Spirit of the Times
The Guardian of Freedom (Frankfort)
The New Genesee Farmer and Gardner's Journal
Transactions of the American Philosophical Society
Western Agriculturalist and Practical Farmers Guide
Western Citizen (Paris, Ky.)

Primary Sources:

Manuscript Collections:

Andrew Steele Papers, 1780-1796, Samuel M. Wilson vertical file, Special Collections Library, University of Kentucky.
Beall-Booth Family Papers, The Filson Historical Society, Louisville, Ky.
Bodo Otto to Charles Gravier, March 11, 1786, English translation of French original, SC 288, Kentucky Historical Society, Frankfort, Ky.
Calk Family Papers, Kentucky Historical Society Special Collections, Frankfort, Ky.
Charles Julian journal, 1800-1869, Special Collections Library, University of Kentucky.
Charles M. Thurston Papers, The Filson Historical Society, Louisville Ky.
Edwin G. Bedford Diaries and Papers, 1812-1902. University of Kentucky Special Collections, Lexington, Kentucky.
Elkhorn Distillery records, 1868-1872. University of Kentucky Special Collections.
Fleming-Edmonds Family Papers, Filson Historical Society, Louisville, Ky.
Greathouse & Waring Family Papers, Kentucky Historical Society, Special Collections, Frankfort, Kentucky.
Harry Innes Todd and George Davidson Todd Papers, MSS 5, Kentucky Historical Society, Frankfort, Kentucky.
Henry Clay Papers, Special Collections, Transylvania University, Lexington, Kentucky.
Hite Family Papers, The Filson Historical Society, Louisville, Kentucky.

James Morrison Papers, 1798-1823, MSC 22, Special Collections, Transylvania University, Lexington, Kentucky.
James Wilkinson and Peyton Short, "Subscription of tobacco shipments to New Orleans" December 19, 1789, in Library of Congress online collection, *The First American West: The Ohio River Valley, 1750-1820*
John C. Wallace Journal, 1786-1802, Manuscripts Collection, Filson Historical Society, Louisville, Kentucky.
John G. Stuart, *A Journal, Remarks or Observations in a Voyage Down the KY, OH & MS Rivers,* 1806, Kentucky Historical Society online collections.
John Roe, "At a meeting of a large number of the Farmers and Planters of the County of Fayette, at the Big Spring," broadside, April 28, 1798, Printed Ephemera Collection, Library of Congress Online.
John W. Jones diaries, 1857-1876, University of Kentucky Special Collections, 75M26
Jon Nichols Correspondence, University of Kentucky, Special Collections Library.
Letter from Harrodsburg, January 30, 1780, Harrodsburg, KY, The Filson Historical Society, Louisville, Kentucky.
Lyman C. Draper Manuscript Collection, University of Kentucky, Special Collections Library.
Meriwether Family Papers, The Filson Historical Society, Louisville, Ky.
Midwife Sarah Owenes bill to estate of William Christian, May 1792 and January 1793, Library of Congress, *The First American West* Collection, http://memory.loc.gov/cgi-bin/query/h?ammem/fawbib:@field(NUMBER+@band(icufaw+cmc0061)) (accessed February 12, 2015).
Murray Family Papers, 1806-1899, MSS 35, Kentucky Historical Society, Frankfort, Kentucky.
S.I.M. Major daybooks, 1837-1853, SC 454, Kentucky Historical Society, Frankfort, Kentucky.
Samuel Williams Papers, 1836-1850, 87W3, Special Collections, University of Kentucky.
Steamboats, Bills of Lading, 1824-1847, SC 282, Kentucky Historical Society, Frankfort, Kentucky.
The Stephen Trigg Papers, The Kentucky Historical Society, Frankfort Ky.
William L. Hedges papers, 1835-1850, SC 126, Kentucky Historical Society, Frankfort, Kentucky.
William Pope, Macklewee Arrest Warrant, August 18, 1786, The Filson Historical Society, Louisville, Ky.

Government Sources:

"A Constitution or Form of Government for the State of Kentucky 1799" Kentucky Historical Society Digital Collections, Frankfort KY.
"Constitutional Convention Journal, 1788-1792," MSS 145, Digital Collections, Kentucky Historical Society, Frankfort, Kentucky.
"Patent right issued to Nathaniel Foster," June 28, 1809, in *First American West: The Ohio River Valley, 1750-1820*, the Library of Congress Online.
H.R. 285. "A Bill Authorizing a subscription of stock in the Maysville, Washington, Paris, and Lexington Turnpike Road Company" 21st Congress, 1st Session, February 24, 1830.
Henry Clay, "Naval Establishment" *Annals of Congress* House of Representatives, 12th Congress, 1st Session, January 1812, 916.

Jackson, Andrew. Veto Message Regarding Funding of Infrastructure Development (May 27, 1830) <http://millercenter.org/president/jackson/speeches/veto-message-regarding-funding-of-infrastructure-development > (accessed November 15, 2016).
Kentucky Revenue Department, *Report of the Second Auditor for the Year Ending on the Tenth Day of October, 1839.* Frankfort: A.G. Hodges, State Printer, 1839.
Littell, William and Jacob Swigert. *A Digest of the Statute Law of Kentucky: Being a Collection of All the Acts of the General Assembly of a Public and Permanent Nature, From the Commencement of the Government to May Session 1822.* Frankfort: Kendall and Russell, 1822.
Littell, William. *The Statute Law of Kentucky; with Notes, Pralections, and Observations on the Public Acts.* Vol. 2. Frankfort: Johnston and Pleasants, 1810.
Stitzel, Frederick. United States Patent: 221,945, "Rack for Tiering Barrels," issued November 25, 1879.
U.S. Census, Eighth United States Census, 1860, accessed via census.gov
U.S. Census, Fifth United States Census, 1830, accessed via census.gov
U.S. Census, First Census of the United States accessed via census.gov
U.S. Census, Fourth Census of the United States, 1820 accessed via census.gov
U.S. Census, Second Census of the United States, 1800 accessed via census.gov
U.S. Census, Seventh United States Census, 1850, accessed via census.gov
U.S. Census, Sixth United States Census, 1840, accessed via census.gov
U.S. Census, Third Census of the United States, 1810, accessed via census.gov

Published Primary Sources:

Ashe, Thomas. *Travels in America, Performed in 1806.* London: Newburyport, 1808.
Clark, Daniel. *Proofs of the Corruption of Gen. James Wilkinson and of his Connection with Aaron Burr.* Philadelphia: William Hall & George Pierie, 1809.
Collins, Lewis. *Historical Sketches of Kentucky: Embracing Its History, Antiquities, and Natural Curiosities, Geographical, Statistical, and Geological Descriptions.* Maysville, Ky. & Cincinnati, Oh, 1848.
Collot, Victor. *A Journey in North America, Containing A Survey of the Countries Watered by the Mississippi, Ohio, Missouri and Other Affluing Rivers.* Paris: Arthus Bertrand, 1826.
Constitution and By-laws of the Bourbon County Agricultural Society. Adopted July 30th 1836. Louisville: Morton & Griswold, 1851, University of Kentucky Special Collections.
Darby, William. *The Emigrant's Guide to the Western and Southwestern States and Territories.* New York: Kirk and Mercian, 1818.
Drew, Benjamin. *The Refugee: Or the Narratives of Fugitives Slaves in Canada.* Boston: John P. Jewett and Company, 1856.
Filson, John. *Discovery, Settlement, and Present State of Kentucke.* New York: Samuel Campbell, 1784.
Gould, E. W. *Fifty Years on the Mississippi; Or, Gould's History of River Navigation.* St. Louis: Nixon-Jones Printing, 1889.
Hall, James. *Notes on the Western States; Containing Descriptive Sketches of their Soil, Climate, Resources and Scenery.* Philadelphia: Harrison Hall, 1838.

Hayden, William. *Narrative of William Hayden, Containing a Faithful Account of His Travels for a Number of Years Whilst a Slave, in the South*. Cincinnati: No Publisher Listed, 1846. http://docsouth.unc.edu/neh/hayden/hayden.html accessed April 18, 2011.

Henderson, George. *WPA Slave Narrative Project, Kentucky Narratives, Volume 7*. Accessed via http://memory.loc.gov/cgi-bin/query/D?mesnbib:1:./temp/~ammem_ZyWN:: April 18, 2011.

Hopkins, James F. and Mary W. M. Hargreaves, eds. *The Papers of Henry Clay.* Volume 1, "The Rising Statesman, 1797-1814." Lexington: University of Kentucky Press, 1959.

Hopkins, James F. ed*., The Papers of Henry Clay* Vol. 2, "The Rising Statesman, 1815-1820." Lexington: University of Kentucky Press, 1959.

Imlay, Gilbert. *A Topographical Description of the Western Territory of North America, &c.* Dublin: William Jones, 1793.

Journal of the Convention. Frankfort: Hunter & Beaumont, 1799. Filson Historical Society, Louisville, Kentucky.

Lyell, Charles. *Travels in North America in the years 1841-2; with Geological Observations on the United States, Canada, and Nova Scotia.* New York: Wiley and Putnam, 1845.

Marryat, Frederick. *A Diary in America, With Remarks on its Institutions.* New York: Wm H. Colyer, 1839.

Martineau, Harriet. *Society in America* Two Volumes in One. Paris: Baudry's European Library, 1842.

Melish, John. *Travels through the United States of America.* London: George Cowie and Co., 1818.

Michaux, F. A. *Travels to the West of the Alleghany Mountains…Undertaken in the Year 1802* Vol. 3, London: B. Crosby & Co., 1805.

Nicholas, George. *A Letter from George Nicholas of Kentucky to his Friend in Virginia Justifying the conduct of the Citizens of Kentucky, as to some of the late Measures of the General Government; and correcting Certain False Statements, which have been made in the different states, of the Views and Actions of the People of Kentucky.* Philadelphia: James Carey, 1799.

Peter, Robert. *Chemical Examination of the Ashes of the Hemp Plants.* Frankfort: 1877.

Rice, David. *A Kentucky Protest Against Slavery: Slavery Inconsistent with Justice and Good Policy, Proved by a Speech, Delivered in the Convention, Held at Danville, Kentucky, By the Rev. David Rice.* New York: Rebellion Record, 1812.

Seager, Robert II and Melba Porter Hay, eds. *The Papers of Henry Clay*. Volume 9. "The Whig Leader: January 1, 1837-December 31, 1843." Lexington: University Press of Kentucky, 1988.

Shaler, Nathaniel S. *Kentucky: A Pioneer Commonwealth.* Boston: Houghton, Mifflin & Co., 1885.

Shaw, John Robert. *The Life & Travels of John Robert Shaw, the Well-Digger, Now Resident in Lexington, Kentucky.* Lexington: Daniel Bradford Printing, 1807.

Sheridan, Thomas. *A Complete Dictionary of the English Language…Third Edition, in Two Volumes* London: Charles Dilly, 1790.

Trotter, Isabella Strange. *First Impressions of the New World.* London: Longman, Brown, Green, Longmans & Roberts, 1859.
Walker, Felix. "Narrative of an Adventure in Kentucky in the Year 1775," *De Bow's Review* 16, no. 2 (February 1854)
Weld, Charles Richard. *A Vacation Tour in the United States and Canada*. London: Longman, Brown, Green and Longmans, 1855.
Wilkinson, James. *A Brief Examination of Testimony to Vindicate the character of General James Wilkinson against the imputation of a sinister connexion with the Spanish government, for purposes hostile to his own country.* Washington City: W. Cooper, 1811.
Wilson, Alexander. *American Ornithology.* London: Whitaker and Company, 1828.
Yandell, L. P. *An Account of Spasmodic Cholera as it appeared in the city of Lexington in June, 1833.* Lexington: Transylvania Medical Journal, 1833.

Secondary Sources, Books:

Alvey, R. Gerald. *Kentucky Bluegrass Country*. Folklife in the South Series. Jackson, MS: University Press of Mississippi, 1992.
Anderson, Virginia DeJohn. *Creatures of Empire: How Domestic Animals Transformed Early America.* Oxford: Oxford University Press, 2004.
Aron, Stephen. *How the West Was Lost: The Transformation of Kentucky from Daniel Boone to Henry Clay.* Baltimore: Johns Hopkins University Press, 1996.
Axton, W.F. *Tobacco and Kentucky.* Lexington: University Press of Kentucky, 1975.
Baptist, Edward. *The Half Has Never Been Told: Slavery and the Making of American Capitalism.* New York: Basic Books, 2014.
Beckert, Sven, Seth Rockman, eds. *Slavery's Capitalism: A New History of American Economic Development.* Philadelphia: University of Pennsylvania Press, 2016.
Beckert, Sven. *Empire of Cotton: A Global History.* New York: Alfred A. Knopf, 2014.
Bemis, Samuel Flagg. *Pickney's Treaty: America's Advantage from European Distress, 1783-1800.* New Haven: Yale University Press, 1960.
Berry, Daina Ramey. *The Price for Their Pound of Flesh: The Value of the Enslaved, from Womb to Grave, in the Building of a Nation.* Boston: Beacon Press, 2017.
Bogart, Charles H. and William M. Ambrose. *Kentucky River Packets: Steamboats, Packetboats and Towboats on the Kentucky River.* Frankfort, KY: Yellow Sparks Press, 2013.
Bradford, John. *The Voice of the Frontier: John Bradford's Notes on Kentucky*. Edited by Thomas D. Clark. Lexington: University Press of Kentucky, 1993.
Campbell, Julian J. N. *The Land of Cane and Clover: Presettlement Vegetation in the So-Called Bluegrass Region of Kentucky: A Report from the Herbarium*. Lexington: University of Kentucky, 1985.
Clark, Thomas D. *A History of Kentucky.* New York: Prentice-Hall, 1936.
Clark, Thomas D. *Agrarian Kentucky.* Lexington: University of Kentucky Press, 1977.
Clark, Thomas D. *The Greening of the South: The Recovery of Land and Forest*. Lexington: University Press of Kentucky, 1984.
Cohen, Benjamin R. *Notes from the Ground: Science, Soil, and Society in the American Countryside*. New Haven: Yale University Press, 2009.
Coleman Jr., J. Winston. *Stage-Coach Days in the Bluegrass.* Louisville: Standard Press, 1935.

Coleman, Jon T. *Vicious: Wolves and Men in America*. New Haven: Yale University Press, 2004.
Collins, Richard H. *History of Kentucky.* Vol. 1. Covington: Collins & Co, 1874.
Cowdrey, Albert E. *This Land, This South: An Environmental History*. Lexington: University Press of Kentucky, 1996.
Cronon, William. *Changes in the Land: Indians, Colonists, and the Ecology of New England* 20th Anniversary Revised Edition. New York: Hill and Wang, 2003.
Cronon, William. *Nature's Metropolis: Chicago and the Great American West.* New York: W. W. Norton, 1991.
Crosby Jr., Alfred W. *The Columbian Exchange: Biological and Cultural Consequences of 1492* 30th Anniversary Edition. Westport, CT: Praeger, 2003.
Crosby, Jr., Alfred W. *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (Cambridge: Cambridge University Press, 1986).
Davis, Donald E. *Southern United States: An Environmental History.* Santa Barbara: ABC-CLIO, 2006.
Donahue, Brian. *The Great Meadow: Farmers and the Land in Colonial Concord.* New Haven: Yale University Press, 2004.
Drake, Daniel and Emmet Field Horine, ed. *Pioneer Life in Kentucky, 1785-1800*. New York: Schuman, 1948.
DuVal, Kathleen. *Independence Lost: Lives on the Edge of the American Revolution*. New York: Random House, 2015.
Edelson, S. Max. *Plantation Enterprise in Colonial South Carolina.* Cambridge: Harvard University Press, 2006.
Ellis, William E. *The Kentucky River.* Lexington: University Press of Kentucky, 2000.
Epps, Kristen. *Slavery on the Periphery: The Kansas-Missouri Border in the Antebellum and Civil War Eras.* Athens: University of Georgia Press, 2016.
Eslinger, Ellen, ed. *Running Mad for Kentucky: Frontier Travel Accounts.* Lexington: University Press of Kentucky, 2004.
Espy, Josiah. *Memorandums of a Tour Made by Josiah Espy in the States of Ohio and Kentucky and Indiana Territory in 1805.* Cincinnati: R. Clarke, 1870.
Everman, H.E. *Bourbon County Since 1865.* Richmond, Ky.: H.E. Everman, 1999.
Faragher, John Mack. *Daniel Boone: The Life and Legend of an American Pioneer.* Henry Holt and Co., 1993.
Fiege, Mark. *Irrigated Eden: The Making of an Agricultural Landscape in the American West.* Seattle: University of Washington Press, 1999.
Fiege, Mark. *The Republic of Nature: An Environmental History of the United States.* Seattle: University of Washington Press, 2012.
Fleming, William. "Journal of Colonel William Fleming, 1779-1780" in *Travels in the American Colonies*, ed. Newton D. Mereness. New York: The MacMillan Company, 1916.
Friend, Craig Thompson ed. *The Buzzel About Kentuck: Settling the Promised Land.* Lexington: University Press of Kentucky, 1999.
Friend, Craig Thompson. *Kentucke's Frontiers.* Bloomington: Indiana University Press, 2010.
Genovese, Eugene D. *Roll, Jordan, Roll: The World the Slaves Made*. New York: Random House, 1976.

Hahn, Steven. *The Political Worlds of Slavery and Freedom.* Cambridge, Mass.: Harvard University Press, 2009.
Harrison, Lowell H. and James C. Klotter, *A New History of Kentucky.* Lexington: University Press of Kentucky, 1997.
Harrison, Lowell H. *John Breckinridge: Jeffersonian Republican.* Louisville: Filson Club Publications, 1969.
Harrison, Lowell H. *Kentucky's Road to Statehood.* Lexington: University Press of Kentucky, 1992.
Hay, Thomas Robson, M. R. Werner, *The Admirable Trumpeter: A Biography of General James Wilkinson.* Garden City, N.Y.: Doubleday, Doran & Co., 1941.
Heidler, David S. and Jeanne T. Heidler. *Henry Clay: The Essential American.* Random House Publishing Group: Kindle Edition, 2010.
Hill, Jerry. *Kentucky Weather*. Lexington: University Press of Kentucky, 2005.
Hockensmith, Charles D. David Pollack, and Thomas N. Sanders, eds. *Paleoindian and Archaic Research in Kentucky*. Frankfort: Kentucky Heritage Council, 1988.
Hopkins, James F. *A History of the Hemp Industry in Kentucky.* Lexington: University of Kentucky Press, 1951.
Hollingsworth, Randolph. *Lexington: Queen of the Bluegrass.* Charleston: Arcadia Press, 2004.
Howard, Victor B. *Black Liberation in Kentucky: Emancipation and Freedom, 1861-1884.* Lexington: University Press of Kentucky, 1983.
Hunter, Louis C. *Steamboats on the Western Rivers: An Economic and Technological History.* Cambridge: Harvard, 1949.
Isenberg, Andrew C. *The Destruction of the Bison.* New York: Cambridge University Press, 2000.
Jacobs, James Ripley. *Tarnished Warrior: Major-General James Wilkinson.* New York: The Macmillian Company, 1938.
James, James Alton ed., *George Rogers Clark Papers 1771-1781,* Vol 1. Springfield: Illinois State Historical Library, 1912.
Jillson, Willard Rouse. *Kentucky Hemp: A History of the Industry in a Commonwealth of the Upper South, 1775-1942.* Versailles: n/a, 1942.
Johnson, Walter. *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom.* Cambridge, MA: Harvard University Press, 2013.
Johnson, Walter. *Soul by Soul: Life Inside the Antebellum Slave Market.* Cambridge, Mass: Harvard University Press, 1999.
Karp, Matt. *This Vast Southern Empire: Slaveholders at the Helm of American Foreign Policy*. Cambridge, Mass: Harvard University Press, 2016.
Kimmerer, Tom. *Venerable Trees: History, Biology, and Conservation in the Bluegrass.* Lexington: University Press of Kentucky, 2015.
King, Wilma. *Stolen Childhood: Slave Youth in Nineteenth-Century America*, 2nd ed. Bloomington: Indiana University Press, 2011.
Kirby, Jack Temple. *Mockingbird Song: Ecological Landscapes of the South.* Chapel Hill: University of North Carolina Press, 2006.
Kleber, John E. ed. *The Encyclopedia of Louisville* Lexington: University Press of Kentucky, 2001.
Kleber, John E. ed. *The Kentucky Encyclopedia.* Lexington: University Press of Kentucky, 1992.

Klotter, James C. and Freda C. Klotter. *A Concise History of Kentucky.* Lexington: University Press of Kentucky, 2008.
Krech III, Shepard. *The Ecological Indian: Myth and History*. New York: W. W. Norton, 1999.
Leopold, Aldo. *A Sand County Almanac: With Essays on Conservation from Round River.* New York: Oxford University Press, 1966.
Lewis, R. Berry, ed. *Kentucky Archaeology.* Lexington: University Press of Kentucky, 1996.
Linklater, Andro. *An Artist in Treason: The Extraordinary Double Life of General James Wilkinson.* New York: Walker, 2009.
Lockridge, Ross F. *George Rogers Clark, Pioneer Hero of the Old Northwest.* Yonkers-on-the-Hudson, N.Y.: World Wood, 1927.
Lucas, Marion Brunson, ed. *A History of Blacks in Kentucky: From Slavery to Segregation, 1760-1891*. 2nd ed. Frankfort: Kentucky Historical Society, 2003.
Mayo, Bernard. *Henry Clay: Spokesman of the New West.* Washington D.C.: Archon Books, 1966.
McEuen, Melissa A. and Thomas H. Appleton, eds., *Kentucky Women: Their Lives and Times.* Athens, GA: University of Georgia Press, 2015.
Murray-Wooley, Carolyn and Karl Raitz. *Rock Fences of the Bluegrass.* Lexington: University Press of Kentucky, 1992.
Neel, Leon, Paul Sutter, and Albert G. Way. *The Art of Managing Longleaf: A Personal History of the Stoddard-Neel Approach.* Athens: University of Georgia Press, 2010.
Nelson, Lynn A. *Pharsalia: An Environmental Biography of a Southern Plantation, 1780-1880.* Athens: University of Georgia Press, 2007.
O'Malley, Nancy. *Stockading Up: A Study of Pioneer Stations in the Inner Bluegrass Region of Kentucky* Archaeological Report 127. Frankfort: Kentucky Heritage Council, 1987.
Okie, William Thomas. *Georgia Peach: Culture, Agriculture, and Environment in the American South.* New York: Cambridge University Press, 2016.
Perkins, Elizabeth A. *Border Life: Experience and Memory in the Revolutionary Ohio Valley.* Kindle Edition, 1998.
Peter, Robert. *History of Fayette County, Kentucky with an Outline Sketch of the Blue Grass Region*. Chicago: O.L. Baskin and Co., 1882.
Pollack, David, Charles D. Hockensmith, and Thomas N. Sanders eds., *Late Prehistoric Research in Kentucky*. Frankfort, KY: Kentucky Heritage Council, 1984.
Pollack, David, ed., *The Archaeology of Kentucky: An Update, Volume One, State Historic Preservation Comprehensive Plan Report No. 3.* Frankfort: Kentucky Heritage Council, 2008.
Pollack, David, ed., *The Archeology of Kentucky: An Update, Volume Two, State Historic Preservation Comprehensive Plan Report No. 3*. Frankfort: Kentucky Heritage Council, 2008.
Proctor, Nicolas W. *Bathed in Blood: Hunting and Mastery in the Old South*. Charlottesville: University Press of Virginia, 2002.
Ramage, James A. and Andrea S. Watkins. *Kentucky Rising: Democracy, Slavery, and Culture from the Early Republic to the Civil War.* Lexington: University Press of Kentucky, 2011.
Raitz, Karl and Nancy O'Malley. *Kentucky's Frontier Highway: Historical Landscapes Along the Maysville Road.* Lexington: University Press of Kentucky, 2012.

Reda, John. *From Furs to Farms: The Transformation of the Mississippi Valley, 1762-1825*. Dekalb, IL: Northern Illinois University Press, 2016.
Rice, Howard C. *Barthélemi Tardiveau: A French Trader in the West, Biographical Sketch, including letters from B. Tardiveau to St. John de Crèvecœur (1788-1789).* Baltimore: The Johns Hopkins Press, 1938.
Robertson, James Rood ed., *Petitions of the Early Inhabitants of Kentucky to the General Assembly of Virginia, 1769 to 1792*. Louisville: Filson Club Publications, 1914.
Rockenbach, Stephen I. *War Upon Our Border: Two Ohio Valley Communities Navigate the Civil War*. Charlottesville, University of Virginia Press, 2016.
Rothman, Joshua D. *Flush Times and Fever Dreams: A Story of Capitalism and Slavery in the Age of Jackson.* Athens: University of Georgia Press, 2012.
Rowland, Daniel and James Klotter, eds., *Bluegrass Renaissance: The History and Culture of Central Kentucky, 1792-1852.* Lexington: University Press of Kentucky, 2012.
Sachs, Honor. *Home Rule: Households, Manhood, and National Expansion on the Eighteenth-Century Kentucky Frontier.* New Haven, CT: Yale University Press, 2015.
Salafia, Matthew. *Slavery's Borderland: Freedom and Bondage Along the Ohio River.* Philadelphia: University of Pennsylvania Press, 2013.
Schermerhorn, Calvin. *The Business of Slavery and the Rise of American Capitalism, 1815-1860.* New Haven: Yale University Press, 2015.
Schwaab, Eugene L. *Travels in the Old South, Selected from Periodicals of the Times.* Lexington: University Press of Kentucky, 1973.
Schwartz, Marion. *A History of Dogs in the Early Americas*. New Haven, Conn: Yale University Press, 1997.
Seager II, Robert, ed., *The Papers of Henry Clay vol. 8 Candidate, Compromiser, Whig, March 5, 1829-December 31, 1836.* Lexington: University Press of Kentucky, 1984.
Shreve, Royal Ornan. *The Finished Scoundrel: General James Wilkinson.* Indianapolis: Bobbs-Merrill Co., 1933.
Silver, Timothy. *A New Face on the Countryside: Indians, Colonists, and Slaves in South Atlantic Forests, 1500-1800.* Cambridge: Cambridge University Press, 1990.
Snyder, Christina. *Great Crossings: Indians, Settlers & Slaves in the Age of Jackson*. New York: Oxford University Press, 2017.
Spero, Patrick. *Frontier Country: The Politics of War in Early Pennsylvania.* Philadelphia: University of Pennsylvania Press, 2016.
Staples, Charles R. *The History of Pioneer Lexington, 1779-1806.* Foreword by Thomas D. Clark. Lexington: University Press of Kentucky, 1996.
Stedman, Ebenezer Hiram. *Bluegrass Craftsman: Being the Reminiscences of Ebenezer Hiram Stedman, Papermaker 1808-1885* Frances L. S. Dugan and Jacqueline P. Bull eds., Lexington: University of Kentucky Press, 1959.
Stewart, Mart A. *What Nature Suffers to Groe: Life, Labor, and Landscape on the Georgia Coast, 1680-1920.* Athens, GA: University of Georgia Press, 1996.
Stoll, Steven. *Larding the Lean Earth: Soil and Society in Nineteenth-Century America*. New York: Hill and Wang, 2002.
Sutter, Paul S. and Christopher J. Manganiello, eds. *Environmental History and the American South: A Reader.* Athens: University of Georgia Press, 2009.

Swanson, Drew A. *A Golden Weed: Tobacco and Environment in the Piedmont South.* New Haven: Yale University Press, 2014.
Swanson, Drew A. *Remaking Wormsloe Plantation: The Environmental History of a Lowcountry Landscape.* Athens, GA: University of Georgia Press, 2012.
Tallant, Harold D. *Evil Necessity: Slavery and Political Culture in Antebellum Kentucky.* Lexington: University Press of Kentucky, 2003.
Toulmin, Harry. *A Description of Kentucky in North America: To which are Prefixed Miscellaneous Observations Respecting the United States.* Edited by Thomas D. Clark. Lexington: University Press of Kentucky, 1945.
Trabue, Daniel. *Westward into Kentucky: The Narrative of Daniel Trabue.* Edited by Chester Raymond Young. Lexington: University Press of Kentucky, 1981.
Turnbow, Christopher A., Cynthia E. Jobe and Nancy O'Malley. *Archaeological Excavations of the Goolman, DeVary, and Stone Sites in Clark County, Kentucky.* Archaeological Report No. 78. Department of Anthropology: University of Kentucky, 1983.
Valencius, Conevery Bolton. *The Health of the Country: How American Settlers Understood Themselves and Their Land*. New York: Basic Books, 2002.
Veach, Michael R. *Kentucky Bourbon Whiskey: An American Heritage.* Lexington: University Press of Kentucky, 2013.
Wade, Richard C. *The Urban Frontier: Pioneer Life in Early Pittsburgh, Cincinnati, Lexington, Louisville, and St. Louis.* Chicago: University of Chicago Press, 1964.
Wharton, Mary E. and Roger W. Barbour. *Bluegrass Land and Life: Land Character, Plants, and Animals of the Inner Bluegrass Region of Kentucky, Past, Present and Future*. Lexington: University Press of Kentucky, 1991.
White, Richard. *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650-1815.* Twentieth anniversary edition. New York: Cambridge University Press, 2011.
White, Richard. *Railroaded: The Transcontinentals and the Making of Modern America.* New York: W.W. Norton, 2011.

Secondary Sources, Articles:

"Cholera," World Health Organization. (July 2015). Accessed September 30, 2016. http://www.who.int/mediacentre/factsheets/fs107/en/.
"Climatology-Lexington, KY" National Weather Service Forecast Office. Accessed October 10, 2014. http://www.crh.noaa.gov/lmk/?n=clilex.
Adelman, Jeremy, and Stephen Aron. "From Borderlands to Borders: Empires, Nation-States, and the Peoples in between in North American History" *The American Historical Review* 104, no. 3 (June 1999), 814-841.
Aderman, Ralph M. "David Myerle and Kentucky Hemp" *The Filson History Quarterly* 35 no. 1 (January 1961): 11-27.
Allen, Jeffery Brooke. "Did Southern Colonizationists Oppose Slavery? Kentucky 1816-1850 as a Test Case" *Register of the Kentucky Historical Society* 75 no. 2 (April 1977): 92-111.
Allen, Turner W. "The Turnpike System in Kentucky: A Review of State Road Policy in the Nineteenth Century" *Filson Club History Quarterly* 28 no. 3 (July 1954): 239-259.
Aron, Stephen. "The Significance of the Kentucky Frontier" *Register of the Kentucky Historical Society* 91 no. 3 (Summer 1993): 298-323.

Aron, Stephen. "The Legacy of Daniel Boone: Three Generations of Boones and the History of Indian-White Relations" *The Register of the Kentucky Historical Society* 95 no. 3 (Fall 1997): 219-136.

Barnhart, John D. "Frontiersmen and Planters in the Formation of Kentucky" *The Journal of Southern History* 7 no. 1 (February 1941): 19-36.

Barton, Keith C. "'Good Cooks and Washers': Slave Hiring, Domestic Labor, and the Market in Bourbon County, Kentucky" *The Journal of American History* 84, no. 2 (September 1997): 436-460.

Beckner, Lucien, ed. "Reverend John D. Shane's Interview with Pioneer William Clinkenbeard" *The Filson Club History Quarterly* 2, no. 3 (April 1928): 95-128.

Beckner, Lucien, ed., "John D. Shane's Interview with Benjamin Allen, Clark County" *The Filson Club History Quarterly* 5, no. 2 (April 1931): 63-98.

Beckner, Lucien, ed., "Rev. John Dabney Shane's Interview with Mrs. Sarah Graham," *The Filson Club Historical Quarterly* 9 no. 4 (October 1935): 222-241.

Bender, Joyce. "Pilot Knob State Nature Preserve," Accessed November 15, 2014. http://naturepreserves.ky.gov/naturepreserves/Pages/pilotknob.aspx.

Berry, Lucy Perry, transcriber. "The Journal of Needham Parry—1794," *Register of the Kentucky State Historical Society* 34, No. 109 (October, 1936): 379-391.

Borougerdi, Bradley J. "Crossing Conventional Borders: Introducing the Legacy of Hemp to the Atlantic World" *Traversea* 1 (2011): 5-12.

Boyd Jr., Carl B. "Local Aid to Railroads in Central Kentucky 1850-1891 part I." *Register of the Kentucky Historical Society* 62 no. 1 (January 1964): 4-23.

Boyd Jr., Carl B. "Local Aid to Railroads in Central Kentucky 1850-1891 part II." *Register of the Kentucky Historical Society* 62 no. 2 (April 1964): 112-133.

Breckinridge, John. "The Democratic Societies of 1793 and 1794 in Kentucky, Pennsylvania and Virginia." *The William and Mary Quarterly* 2, No. 4 (October 1922): 249-243.

Breckinridge, John. "To the President and Congress of the United States of America: The Remonstrance of the Citizens West of the Allegany Mountains" in "To the President and Congress of the United States of America," *The William and Mary Quarterly* 2, no. 4 (October 1922): 244-256.

Cimprich, Vickie. "Free and Freed Shakers and Affiliates of African Descent at Pleasant Hill, Kentucky" *Register of the Kentucky Historical Society* 111 no. 4 (Autumn 2013): 489-523.

Clark, Thomas D. "The Lexington and Ohio Railroad—A Pioneer Venture" *Register of the Kentucky Historical Society* 31 no. 94 (January 1933): 9-28.

Clark, Thomas D. "Live Stock Trade Between Kentucky and the South 1840-1860," *Register of the Kentucky Historical Society* 27 no. 81 (September 1929): 569-581.

Coleman, Jr., J. Winston. "John W. Coleman: Early Kentucky Hemp Manufacturer" *The Filson Club History Quarterly* 24 no. 1 (January 1950): 34-48.

Condict, Lewis. "Journal of a Trip to Kentucky in 1795," *Proceedings of the New Jersey Historical Society* 4 nos. 1-4 (1919): 108-127.

Cotterill, R. S. "Early Railroading In Kentucky" *Register of the Kentucky Historical Society*, 17 no. 49 (January 1919): 53-62.

Coulter, E. Merton. “The Efforts of the Democratic Societies of the West to Open the Navigation of the Mississippi,” *The Mississippi Valley Historical Review* 11 no. 3 (December 1924): 376-389.

Delcourt, Paul A., Hazel R. Delcourt, Cecil R. Ison, William E. Sharp and Kristen J. Gremillion. “Prehistoric Human Use of Fire, the Eastern Agricultural Complex, and Appalachian Oak-Chestnut Forests: Paleoecology of Cliff Palace Pond, Kentucky,” *American Antiquity*, Vol. 63 no. 2 (April 1998), 263-278.

Dupre, Huntley. “Political Ideas of George Nicholas” *Register of the Kentucky State Historical Society* 39 no. 128 (July 1941): 201-223.

Eslinger, Ellen. “Farming on the Kentucky Frontier” *Register of the Kentucky Historical Society* 107 no. 1 (Winter 2009): 3-32.

Eslinger, Ellen. “The Shape of Slavery on the Kentucky Frontier, 1775-1800” *Register of the Kentucky Historical Society* 92 no. 1 (Winter 1994): 1-23.

Fleming, William. “Journal of Colonel William Fleming, 1779-1780.” In *Travels in the American Colonies*, edited by Newton D. Mereness, 617-655. New York: The Macmillian Company, 1916.

Fowler, Isla Earle, ed., “Kentucky 150 Years Ago: As Seen Through the Eyes of an English Emigrant Told in Two Letters Written by Henry Alderson, Dated September 10, 1801” *Register of the Kentucky Historical Society* 49 no. 166 (January 1951): 55-59.

Friend, Craig Thompson. "'Fond Illusions' and Environmental Transformation Along the Maysville-Lexington Road” *Register of the Kentucky Historical Society* 94 no. 1 (Winter 1996): 4-32.

Garcia, Hazel Dicken. “‘A Great Deal of Money…’: Notes on Kentucky Costs, 1786-1792” *Register of the Kentucky Historical Society* 77 no. 3 (Summer 1979): 186-200.

Giltner, Scott. “Slave Hunting and Fishing in the Antebellum South,” *To Love the Wind and the Rain: African Americans and Environmental History,* edited by Dianne D. Glave and Mark Stoll, 21-36. Pittsburgh: University of Pittsburgh Press, 2006.

Gontar, Cybele. "“Port of New-Orleans SHUT.”: A Natchez Broadside at Archivo General de Indias" *Common-Place* 16 no. 2 (Winter 2016). Accessed March 11, 2017. http://common-place.org/book/port-of-new-orleans-shut-a-natchez-broadside-at-archivo-general-de-indias/

Harris, Edward to Thomas Christie, April 11, 1797. *Filson Club History Quarterly* 2 no. 4 (July 1928): 164-168.

Harris, Stanley E. “The Carolina Parakeet Vanishes: Extinction of the Ohio Valley’s Only Parrot,” *Ohio Valley History* 13 no. 1 (Spring 2013): 3-21.

Harrison, Lowell H. "The Anti-Slavery Career of Cassius M. Clay" *Register of the Kentucky Historical Society* 59 no. 4 (October 1961): 295-317.

Harrison, Lowell H., ed., “John Breckinridge’s Bluegrass Plantation, Agreement to Operate, 1806,” *The Filson Club History Quarterly* 31 no. 2 (April 1957): 104-114.

Harrison, Lowell. “John Breckinridge and the Kentucky Constitution of 1799” *Register of the Kentucky Historical Society* 57 No. 3 (July 1959): 209-233.

Hersey, Mark D. “The Lay of the Land: Environmental History, the South, and Kentucky” *Register of the Kentucky Historical Society* 115 no. 2 (April 2017): 129-153.

Hill, Jerry, and H. Michael Mogil. “The Weather and Climate of Kentucky” *Weatherwise* 65 no. 5 (2012): 26-32.

Hopkins, James F. "The Production of Hemp in Kentucky for Naval Use” *The Filson History Quarterly* 23 no. 1 (January 1949): 34-51.

Kelly, Robert L. and Mary Prasciunas, “Did the Ancestors of Native Americans Cause Animal Extinctions in Late-Pleistocene North America?: And Does it Matter if They Did?” In *Natives Americans and the Environment: Perspectives on the Ecological Indian*, edited by Michael Eugene Harkin, David Rich Lewis, 95-122. Lincoln, NE: University of Nebraska Press, 2007.

Kentucky Water Research Institute, “North Elkhorn Creek,” *Kentucky River Basin Assessment Report,* (2000) Accessed March 9, 2017. http://www.uky.edu/WaterResources/Watershed/KRB_AR/north_elkhorn_creek.htm.

Kercsmar, Joshua. “Wolves at Heart: How Dog Evolution Shaped Whites’ Perceptions of Indians in North America,” *Environmental History* 21 no. 3 (April 2016): 516-540.

Kilpatrick, Lewis H. ed., “The Journal of William Calk, Kentucky Pioneer,” *The Mississippi Valley Historical Review* 7 no. 4 (March 1921): 363-377.

Lindstrom, Diane L. "Southern Dependence Upon Interregional Grain Supplies: A Review of the Trade Flows, 1840-1860," *Agricultural History* 44 no. 1 (January 1970): 101-113.

Lyons, Kathleen S., Felisa A. Smith, Peter J. Wagner, Ethan P. White, and James H. Brown. "Was a ‘Hyperdisease’ Responsible for the Late Pleistocene Megafaunal Extinction?" *Ecology Letters* 7 no. 9 (September 2004): 859-868.

MacPhee, R. D. E. and P. A. Marx, “The 40,000 year plague: Humans, hyperdisease, and First Contact Extinctions” in *Natural Change and Human Impact in Madagascar*, edited by S. M. Goodman and B. D. Patterson, 168-217. Washington D.C.: Smithsonian Institution Press, 1997.

Martin, Paul S. “Pleistocene Overkill,” *Natural History* 76 no. 10 (December 1967): 32-38.

Martin, Vernon P. “Father Rice, the Preacher Who Followed the Frontier” *The Filson Club History Quarterly* 29 no. 4 (October 1955): 324-330.

Mathias, Frank F. "The Relief and Court Struggle: Half-way House to Populism” *Register of the Kentucky Historical Society* 71 no. 2 (April 1973): 154-176.

McEwan, Ryan W. and Brian C. McCarthy. “Anthropogenic Disturbance and the Formation of Oak Savanna in Central Kentucky” *Journal of Biogeography* 35 no. 5 (May 2008): 965-975.

Merchant, Carolyn. "Shades of Darkness: Race and Environmental History” *Environmental History* 8 no. 3 (July 2003): 380-394.

Narrett, David. “Kentucky and the Union at the Crossroads: George Rogers Clark, James Wilkinson, and the Danville Convention, 1786-1787” *Ohio Valley History* 16 no. 1 (Spring 2016): 3-23.

North Kentucky Cattle Importing Company, “The Introduction of Imported Cattle in Kentucky: Extracts from the Herd Book of the North Kentucky Cattle Importing Company, 1853,” *Register of the Kentucky State Historical Society* 29 no. 89 (October 1931): 400-415.

Ottsen, Ann I. "A Reconstruction of the Activities and Outbuildings at Farmington, An Early Nineteenth Century Hemp Farm” *The Filson Club History Quarterly* 59, no. 4 (October 1985): 395-425.

Parr, Elizabeth L. "Kentucky's Overland Trade with the Ante-Bellum South" The Filson Club History Quarterly 2 (January 1928) 71-81.
Patrick, Andrew P. "Birth of the Bluegrass: Ecological Transformations in Central Kentucky to 1810," *Register of the Kentucky Historical Society* 115 no. 2 (Spring 2017): 155-182.
Perkins, Elizabeth A. "The Consumer Frontier: Household Consumption in Early Kentucky" *The Journal of American History* 78 No. 2 (September 1991): 486-510.
Perkins, Thomas. "Letters of Thomas Perkins to Gen. Joseph Palmer Lincoln County, Kentucky, 1785," ed. James R. Bentley, *The Filson Club History Quarterly* 49 no. 2 (April 1975): 141-151.
Raitz, Karl and Nancy O'Malley. "Local-scale turnpike roads in nineteenth-century Kentucky" *Journal of Historical Geography* 33 no. 1 (2007): 1-23.
Raitz, Karl. "Making Bourbon: A Landscape Ecology of Distilling Practices in Nineteenth-Century Kentucky" keynote address, Agricultural History Society annual meeting in Lexington, Kentucky, June 6, 2015.
Rothert, Otto A., trans., "John D. Shane's Interview with Colonel John Graves of Fayette County" *The Filson Historical Quarterly* 15 no. 4 (October 1941): 238-247.
Smiley, David L. "Cassius M. Clay and Southern Abolitionism." *The Register of the Kentucky Historical Society* 49, no. 169 (October 1951): 331-336.
Soltow, Lee. "Horse Owners in Kentucky in 1800" *Register of the Kentucky Historical Society* 79 no. 3 (Summer 1981): 203-210.
Soltow, Lee. "Kentucky Wealth at the End of the Eighteenth Century" *The Journal of Economic History* 43, no. 3 (September 1983): 617-633.
Sprague, Stuart Seely. "Louisville Canal: Key to Aaron Burr's Western Trip of 1805" *Register of the Kentucky Historical Society* 71 no. 1 (January 1973): 69-86.
Steadman, David W., Paul S. Martin, "Extinction of Birds in the Late Pleistocene of North America." In *Quaternary Extinctions: A Prehistoric Revolution,* edited by Paul S. Martin and Richard G. Klein, 466-477. Tucson: University of Arizona Press, 1989.
Stewart, Mart. "If John Muir Had Been an Agrarian: American Environmental History West and South," *Environment and History* 11 no. 2 (May 2005): 139-162.
Terry, Gail S. "Sustaining the Bonds of Kinship in a Trans-Appalachian Migration, 1790-1811: The Cabell-Breckinridge Slaves Move West" *The Virginia Magazine of History and Biography* 102, no. 4 (October 1994): 445-476.
Thompson, Ed Porter. "Kentucky's First Railroad," *Register of the Kentucky Historical Society* 1 no. 1 (January 1903): 18-25.
Thruston, R. C. Ballard, ed., "Letter by Edward Harris, 1797" *The Filson Club History Quarterly* 2 no. 3 (April 1928): 164-168.
Trescott, Paul B. "The Louisville and Portland Canal Company, 1825-1874" *The Mississippi Valley Historical Review* 44 no. 4 (March 1958): 686-708.
Turner, Wallace B. "Abolitionism in Kentucky" *Register of the Kentucky Historical Society* 69, no. 4 (October 1971): 319-338.
Wolfe, Margaret Ripley. "Fallen Leaves and Missing Pages: Women in Kentucky History," *Register of the Kentucky Historical Society* 90 no. 1 (1992): 64-89.
Woods, A.J., J.M. Omernik, W.H. Martin, G.J. Pond, W.M. Andrews, S.M. Call, J.A. Comstock, and D.D. Taylor, *Ecoregions of Kentucky: color poster with map, descriptive text,*

summary tables, and photographs (2002) Accessed February 4, 2017. ftp://newftp.epa.gov/EPADataCommons/ORD/Ecoregions/ky/ky_eco_lg.pdf.
Worster, Donald. "Transformations of the Earth: Toward an Agroecological Perspective," *Journal of American History* 76 no. 4 (March 1990): 1087-1106.
Zabilka, Ivan L. "Nathaniel Southgate Shaler and the Kentucky Geological Survey" *Register of the Kentucky Historical Society* 80 no. 4 (Autumn 1982): 408-431.

Theses and Dissertations:

Borougerdi, Bradley J. "Cord of Empire, Exotic Intoxicant: Hemp and Culture in the Atlantic World, 1600-1900" PhD. Dissertation at the University of Texas at Arlington, 2014.
Clark, Thomas D. "The Trade Between Kentucky and the Cotton Kingdom in Livestock, Hemp, and Slaves from 1840 to 1860," MA thesis, 1929.
Clotfelter, Elizabeth R. *The Agricultural History of Bourbon County, Kentucky Prior to 1900.* (Thesis at the University of Kentucky, 1953)
Fitzpatrick, Benjamin. "'Negroes for Sale': The Slave Trade in Antebellum Kentucky," Ph.D. diss. University of Notre Dame, 2009.
Friend, Craig Thompson. *Inheriting Eden: The Creation of Society and Community in Early Kentucky, 1792-1812*. Ph.D. diss. University of Kentucky, 1995.
Patrick, Andrew, "Inner Bluegrass Agriculture: An Agroecological Perspective, 1850-1880" University of Kentucky MA thesis, 2012.
Rogers, Amelia. *Ashland: The Home of Henry Clay* University of Kentucky, M.A. Thesis, 1934.
Smith, Miles. "The Kentucky Colonel: Richard M. Johnson and the Rise of Western Democracy, 1780-1850," PhD dissertation at Texas Christian University, 2013.
Teute, Fredrika Johanna. "Land, Liberty, and Labor in the Post-Revolutionary Era: Kentucky as the Promised Land" (Ph. D. dissertation, Johns Hopkins University, 1988).
Troutman, Richard Laverne. *Plantation Life in the Ante-Bellum Bluegrass Region of Kentucky*. MA Thesis, University of Kentucky, 1955.
Troutman, Richard. *The Social and Economic Structure of Kentucky Agriculture, 1850-1860.* (Dissertation at the University of Kentucky, 1958)
Turner, Martha Wharry. "Hiding, Hunting and Habitat: An Environmental Re-Analysis of the Slave Narratives," MA Thesis, Boise State University, 2012 <http://scholarworks.boisestate.edu/td/303> accessed February 12, 2017.

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